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• Power output: 1.3 Watts RMS • Frequency response: 80Hz - 16kHz



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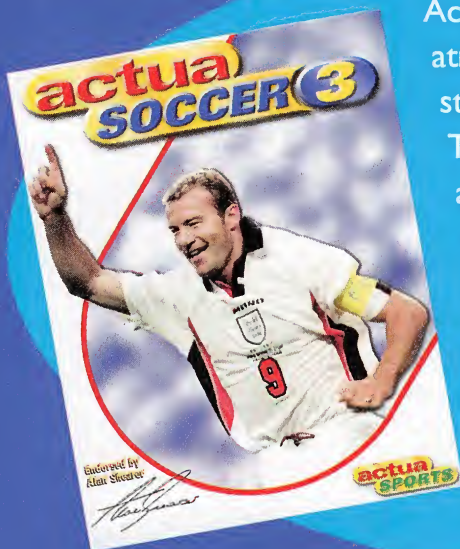
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What we're playing:
Fallout 2, Grand Prix Legends,
Railroad Tycoon II, AFL 99,
Championship Manager 3, Xenogears,
Falcon 4.0

It's PLAYTIME!



The circle is complete. A personal quest of mine I wasn't even aware of is fulfilled.

Five years ago I was playing Civilization, Formula 1 Grand Prix and Falcon 3.0. As new games appeared I would divert my attention temporarily, but always return to the Big 3. These were the best, the greatest games of their era (I speak of personal taste, of course). It was all there: flying, driving and empire building - what more could a gamer want!

Well, nothing lasts forever and eventually the frequency they were played diminished to zero. That was a few years ago. I realise now that ever since then I've been looking to recreate this golden age of gaming happiness. Sure, call me a melancholic retro retard, but as great as the last few years of gaming has been, there's always been a yearning for the same magic gaming time.

Maybe, like everyone else (mostly), I want to relive a past which, over the years, has taken on more of a legendary status than it may deserve. Well lucky me, because right now I'm in gaming heaven.

Filling the hole that was Grand Prix, Civilization and Falcon 3.0 is Grand Prix Legends, Railroad Tycoon 2 and Falcon 4.0. It's weird and wonderful. I'm playing the same games, but with the benefit of a few years of technological progress to take them to the next level. Still, the feeling is the same. The circle has turned.

For you it may be the same, but with a different game, or set of games. For undeniably, 1998 has been a mighty year of gaming. I'll resist calling it the biggest year ever (despite our love of 'Best Evers'). It may well be that - it is for me, but gaming is an individual thing. I've found my Nirvana for the moment, and I hope this year brought you games which are equally magic.

So there. No incisive analysis of Something Important this month, just sharing the joy that great gaming can bring. It's Playtime kids.

Ben Mansill
Editor



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SUBSCRIBE 18

Be a full card-carrying (card not included) member of PCPP, plus be in the running for big cool prizes.

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TNT + TV, Videologic Sonic Storm Pro, Creative's kickass Home Theatre system, big sexy PCs and little sexy joysticks.



AMD Interview 28

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1999's CPU from AMD promises to leave the opposition in the dust - at least as far as gamers are concerned.



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The greatest Quake mod ever - and it's Australian!

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No, we're completely serious. Add positive Karma to your gaming environment.





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Stress no more! It's all here.

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Why buy when you can win? Makes sense to us...

Flashback **146**

Mr Wildgoose cries into his keyboard as he recalls the happy days of playing Alone in the Dark.



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CD GUIDE

Play with it. You know you want to.

CD #33

Starting the PC PowerPlay CD

Once again we have crammed as many **QUALITY** demos as possible on to one CD. To use, simply insert the CD into your drive and sit back as the interface materialises right before your eyes [if not, just double click on the RUNME.BAT file].

Once the menu is up, click on **GAMES**, **UTILS** or **PATCHES** to access those menus. Select the program you want to testdrive and it will either install onto your hard drive or run straight from the CD. More options are available and they are pretty much straightforward.

cdtech@powerplay.next.com.au

Faulty CDs will be replaced free of charge. Send it, together with a description of the error, to:

PC PowerPlay CD Returns
Reply Paid 634
78 Renwick St
Redfern
NSW 2016 (No postage required)



8 PC PowerPlay

The Games

Heavy Gear II

Publisher: Activision

Genre: Robot Sim

The 1st Strike Recon Black Talons squad is being formed of the world's best Gear pilots to conduct covert operations and insurrectionist missions deep behind enemy lines on a hostile planet. The recent atrocities committed on Terra Nova indicate that Earth is returning to try and claim its lost colony once again. Your squad's mission is to slow them down, disrupt their plans, and otherwise buy time for your planet of Terra Nova to prepare for the coming war with its old nemesis, Earth. To do this, you'll engage hostiles in the vacuum of outer space, the polar ice caps of a thin atmosphere world, sprawling mining complexes, dense urban jungles and asteroid belts. Your Gears are some of the best ever produced, but you'll be cut off behind enemy lines, with no means of resupply and no reinforcements. You must fend for yourself, achieve your objectives, forage for ammunition, and live by your wits in order to survive this assignment.

MOVEMENT

Steer Right NUMPAD 6
Steer Left NUMPAD 4
Forward NUMPAD 8
Backward NUMPAD 2
Side Step Left NUMPAD 7
Side Step Right NUMPAD 9
Increase Throttle NUMPAD +
Decrease Throttle NUMPAD -
Roll Left NUMPAD 1
Roll Right NUMPAD 3

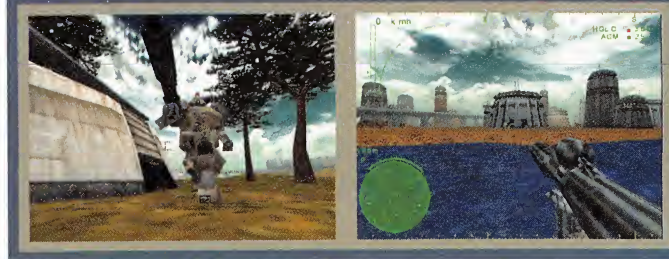
Crouch PGDN
Stand Up PGUP
Wheels BACKSPACE
Jump Jets NUMPAD ENTER

TARGETING_HUD
Weapon Fire MOUSE o
Weapon Cycle MOUSE 1
Target ReticleX MOUSE X-AXIS
Target ReticleY MOUSE Y-AXIS
Change Weapon RIGHT SHIFT
Throw Grenade G
Target Cycle T
Previous Target R
Nearest Enemy E
Target Friendly F
Drop Marker Q
Radar Zoom Z
Active Radar Config A
HUD Display ON-OFF X
HUD Color CAPSLOCK

SQUAD_NETWORK
Tactical Map TAB
General Chat F1
Stats Display Toggle F2

MISCELLANEOUS
External Tracking C
Camera Left RIGHT ALT + LEFT ARROW
Camera Right RIGHT ALT + RIGHT ARROW
Camera Up RIGHT ALT + UP ARROW
Camera Down RIGHT ALT + DOWN ARROW
Zoom In HOME
Zoom Out END
Console Display Toggle `

Requirements:
Minimum: P166, 16 MB, SVGA
Recommended: P233, 32 MB, SVGA 2 MB, 3D Card





Colin McRae Rally

Publisher: Codemasters

Genre: Driving Sim

Updated version of the popular rally championship game which has been enhanced to run smoother than before. This demo of Colin McRae Rally includes three tracks: New Zealand, Australia, and Monte Carlo.

Requirements:

Minimum: P133, 16 MB, SVGA

Recommended: P200, 32 MB, SVGA, 3D Card

Beavis And Butthead Minigolf

Publisher: GT Interactive

Genre: Sports - Golf

The inventors of frog baseball are back and adding their own unique spin to the world of miniature golf. No more wussy windmills to block your path. Dodge nacho cheese lava flows, lava lamps, tombstones, buzz saws and more.

Requirements:

Minimum: P133, 16 MB, SVGA

Recommended: P200, 32MB, SVGA

Carnivores

Publisher: WizardWorks

Genre: 1st Person Shooter
2190 AD. On a routine exploration mission, science vessel FMM UV discovered a planet with a suitable climate for humankind. During the initial scouting expedition this young planet, code-named FMM UV-32, was declared inhospitable for colony life due to its unsta-

ble terrain and immense population of prehistoric reptiles. News of this amazing planet spread and articles on the "Dinosaur Planet" lead an earth corporation to purchase the rights to the planet, and create DinoHunt Corp. DinoHunt created the unique opportunity for paying customers to become dinosaur hunters for the first time in 50 million years. You are the newest client of DinoHunt Corp.

Controls:

Forward A

Backward Z

Turn Up Up arrow

Turn Down Down arrow

Turn Left Left arrow

Turn Right Right arrow

Fire Mouse button 1

Get Weapon Mouse button 2

Jump Space bar

Run SHIFT

Crouch X

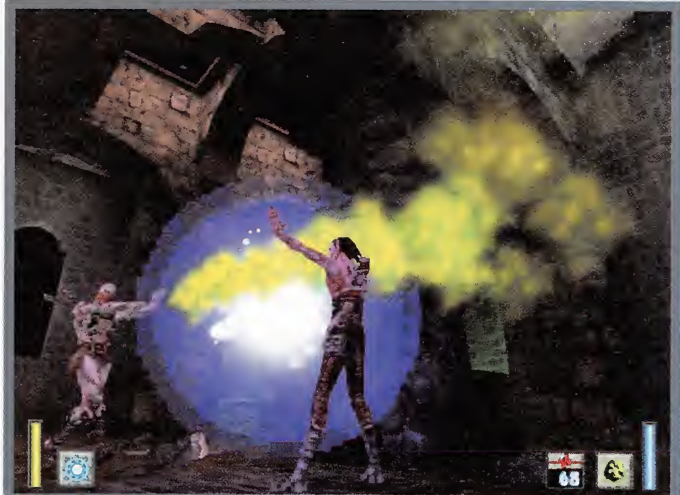
Call ALT

Binoculars B

Requirements:

Minimum: P150, 16 MB, SVGA

Recommended: P233, 32 MB, SVGA 2MB, 3D Card



Heretic II

Publisher: Activision

Genre: 1st Person Shooter

Explore ruined cities, gaping gorges, eerie swamplands, unstable mines, menacing dungeons, and other outlandish domains in your quest to defeat the plague-ridden creatures that inhabit these lands. You think you defeated D'Sparil, the first Serpent Rider? Think again...

Simple Actions:

Walk Forward Up Arrow (or Mouse 2)

Walk Backward Down Arrow (or Mouse 3)

Run Forward Shift + Forward

Run Backward Shift + Backward (Handspring)

Jump "/" key

Crouch "M" key

Defend Enter

Sidestep Left "," key

Sidestep Right "." key

Complex Actions:

Forward Roll: Walk Forward while Crouched

Backward Roll: Walk Backward while Crouched

Forward Flip: Run Forward while Jumping

Backward Flip: Walk Backward while Jumping

Backward Handspring: Run Backward

Left Flip: Sidestep Left while Jumping

Right Flip: Sidestep Right while Jumping

Ledge Grab: Move/Jump up to ledge and use the Action key

Rope Swing: Jump up on rope and use the Action key

Pole Vault: With Staff selected, Run Forward while Jumping

Backflip off Wall: Hold Backward while Jumping toward a wall.

Attacks

Attack: Mouse 1

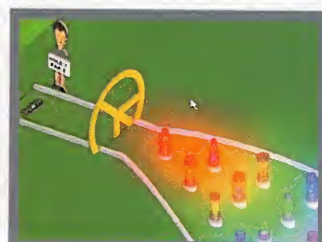
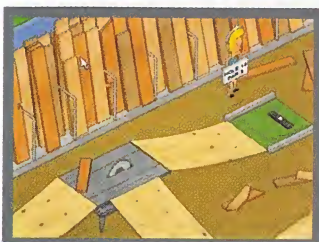
Whirling Staff-Attack: Attack while Running Forward

Pole-vault Kick: Use the Staff, then Run and Jump into an enemy

Requirements:

Minimum: P166, 32 MB, SVGA 2MB

Recommended: P200, 64 MB, 32 MB, 4 MB, 3D Card





Klingon Honor Guard

Publisher: Microprose
Genre: 1st Person Shooter
 While your character is training for induction to the Klingon Honor Guard, an assassination attempt is made on Gowron, the leader of the Klingon High Council. A bomb has exploded in the High Council chamber, killing several members of the High Council, the Honor Guard, and seriously injuring Gowron. Gowron orders you to active duty in order to pursue the criminals and bring them to justice... Klingon justice.

Requirements:
Minimum: P133, 32 MB, SVGA, 3D Card
Recommended: P200, 64 MB, SVGA, 3D Card



Requiem: Avenging Angel

Publisher: 3DO
Genre: Strategy - 1st Person Shooter
 There has been a second war in Heaven, and a group of rebellious angels have descended to Earth to destroy mankind. These angels, known as the Fallen, are jealous of man's preferred place in the universe. You play Malachi, a loyal angel who must take on mortal form and stop the Fallen angels. Malachi's adventures take him from the depths of Hell, to wartorn cities, to the vastness of uncharted space. As Malachi progresses, he learns more of the Fallen's plans. Through in-game interactions with a wide range of 3D characters, Malachi recruits human allies to help him in his struggle.

Default Controls
Look Mouse
Move forward E
Move back D
Move Left S
Move Right F
Jump Space
Fire Left Mouse Button
Powers/Weapons Menu A
Cycle thru Powers T
Cycle thru Weapons W

Requirements:
Minimum: P166, 32MB, SVGA, 3D Card
Recommended: P266, 64 MB, SVGA, 3D Card

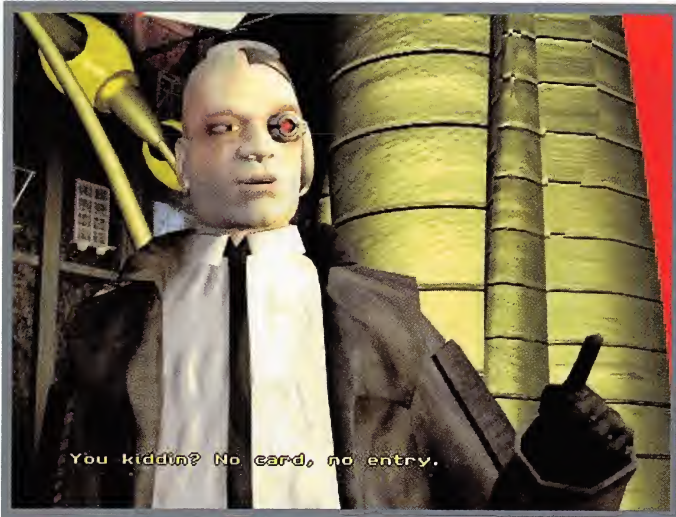


Settlers III

Publisher: Blue Byte
Genre: Strategy - Real Time
 Control the full cycle of your civilisation's evolution, from the initial planning and building of its infrastructure, to the full-blooded conflict of race against race in the quest to expand your power and domination. Before you start conquering your neighbors, however, you'll first need to create a sustainable economy from the interdependent activities of agriculture, industry and trading. Game comes with online tutorial.

Requirements:
Minimum: P100, 32MB, SVGA
Recommended: P200, 64 MB, SVGA





Nitelong

Publisher: Trecision

Genre: Adventure

The year is 2099, the world is a markedly different place.

Massive technological advances allowing cheap and efficient energy production have made the United States of the New Order into the most powerful country in the world.

Cyberspace is the biggest invention of the era and has made it possible for everyone to interact through the huge developments in networks. From the comfort

of your armchair you can submerge yourself in any experience you can think of. To work, shop or for entertainment you do not need to leave your home. Yet who is behind the scenes, pulling the strings, controlling the populace? Uncover the truth in this Blade Runner type adventure...

Requirements:

Minimum: P100, 16 MB, SVGA

Recommended: P200, 32 MB, SVGA

Peoples General

Publisher: SSI

Genre: Strategy - Turn Based

The unthinkable has happened. The two mightiest nations in the modern world have come to grips in a contest that will decide the fate of Asia and possibly the world. Can you finish what Genghis Khan and his sons began? Or should you follow ancient wisdom and never get involved in a land war in Asia?

Requirements:

Minimum: P166, 32 MB, SVGA

Recommended: P233, 64 MB, SVGA

You assume the exciting role of an undercover agent working for the Rebel Alliance in their mission to overcome the evil Empire. Disguised as a Jawa, your job is to become a Master Droid Builder by designing and building droids that help you complete important missions. Ultimately, you must find the secret location of the Empire's Assassin Droid Factory, and reprogram the assassin droids before they stop the Rebellion! May the force be with you, 'cos you'll need it.

UP ARROW run forward (double power consumed)

DOWN ARROW walk backward

SHIFT UP ARROW walk forward

SHIFT DN ARROW walk backward slowly

LEFT ARROW rotate left

RIGHT ARROW rotate right

ALT LEFT ARROW step left (multi-ped only)

ALT RIGHT ARROW step right (multi-ped only)

R or S use right arm to grab, push, etc.

L or A use left arm to grab, push, etc.

X jump (multi-ped only)

H turn special head attribute on/off

Star Wars: Droidworks

Publisher: Lucas Arts

Genre: Platform

The fight for freedom in the galaxy continues. Rebel spies have learned that the evil Empire has built a secret droid factory somewhere on the planet Tatooine. It is there that Imperial engineers are building an army of assassin droids. Once activated, these dangerous machines will terrorize the galaxy.

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SPACEBAR talk to other characters

PAGE UP or E look up

PAGE DN or C look down

HOME or D look straight ahead

V + Mouse look around (hold down V and move mouse)

F11 adjust screen brightness

F12 save screen shot

+ or - adjust screen size

ESC skip a movie or dialog

PAUSE or P pause the game during a mission

Requirements:

Minimum: P133, 16 MB, SVGA

Recommended: P200, 32 MB, SVGA

Test Drive 5

Publisher: Accolade

Genre: Driving Sim
The clash of modern super cars vs. muscle cars from the past continues in the sequel to the best-selling Test Drive 4. Test Drive 5 features include split-screen mode, branching roads, and breathtaking photo realistic graphics to make it a great racing challenge.

Requirements:

Minimum: P133, 16 MB RAM

Recommended: P200, 32 MB, SVGA, 3D Card



Utilities

3D Mark99

"The Gamers' Benchmark" is a diagnostic suite that analyzes, tests and reports your system's 3D performance. 3DMark tells how to maximize your 3D performance by producing one easy to understand result from a balanced testing methodology that includes image quality, rendering speed, CPU capability and an Internet information base.

Acdsee

Our favourite image viewer which is very fast at decoding pictures. It supports the following formats: BMP, GIF, JPEG, PCX, Photo-CD, PNG, TGA and TIFF image formats.

Antiviral Toolkit Pro

Complete prevention, detection, and elimination of thousands of computer viruses and trojan horse programs. Virus scans recursively within ZIP, ARJ, RAR and all the other popular archives. Must have utility.

Netscape 4.5

The best internet browser available. It features: Enhanced visual appearance and user interface, Taskbar that enables easy access to Communicator components,

HTML Editing, Collabra Conferencing and a lot more.

Adobe Photoshop 5

Test drive the most advanced and popular photo imaging software available. If you want to create impressive graphics then you have to try this program out.

Cakewalk 7

Cakewalk is a powerful MIDI and digital audio software application that allows you to produce music and sound projects quickly and affordably. It provides many of Cakewalk's advanced technologies, with a focus on the needs of the commercial project studio. If you're serious about your music and sound projects and are looking to maximize cost efficiencies, then Cakewalk Professional 7 is for you.

ICQ 98

Would you like to know if your friends and associates are surfing the net? With ICQ you can chat, send messages and files, play games and even chat to total strangers around the world.

MemTurbo

MemTurbo increases your system performance by making

more RAM available for your applications and the operating system. It also defragments your physical RAM, increasing the efficiency of your CPU and Motherboard caches. MemTurbo also recovers memory leaks from poorly behaved applications and flushes unused libraries and DLLs temporarily out to disk, making more room for your favourite games or applications.

Ultra Edit

A great text editor with almost every feature you could want. Some of its many features include: disk based text editing - no limit on file size, minimum RAM used even for multi-megabyte files, column mode editing!!!, insert columns/ delete/ cut/add sequential numbers, 100,000 word spell checker, syntax highlighting, editing of any binary file, hex cut, copy and paste support, replace and replace all, multiple files open and displayed at the same time, and more.

Ulead Cool 3D 2

COOL 3D is a great 3D titling program that brings the power and excitement of 3D right to your desktop. With COOL 3D you can now quickly and easily

add great-looking 3D text to your web pages, documents, presentations, videos and multimedia titles. It's never been easier - and never this cool!

Windows Commander

Excellent Windows Explorer substitute for maintaining all your files and directories. Works much faster than Explorer. It has many useful features such as ZIP packer, enhanced search, quick view, FTP client, direct access to Network Neighborhood, directory history, UUencoding, split/combine and heaps more.

Winzip 7

The latest release of Winzip serves up several new features making it so much easier to managing archives.

PATCHES

This month's patches include:

- Dune 2000
- Half-Life
- Sin
- Tomb Raider 3

Telstra BigPond Internet Services

New subscribers to Telstra Big Pond Home will receive a 50 free* hour trial. To be eligible, readers should load the software (included on the cover CD) and follow the instructions to sign-up to Telstra Big Pond Home. In doing so, their account will automatically be credited 50 trial hours.

*Normal telecommunication charges apply. Valid credit card required. Trial hours available to new subscribers only for use in first month of membership. Unused hours are not rolled over into the following month. ISDN access not included.





Top Gun: Hornets Nest

Publisher: Microprose

Genre: Flight Sim

You're Maverick, the Navy's top gun, in the cockpit of a screaming F/A-18 with the attitude and guts to take out any enemy foolish enough to take you on. You rule the sky in a fast-paced, action-flying battle-to-the-death game based on the classic motion picture. Just kick the tires, light the fires and go to full

afterburner and clean 'em and fry 'em.

Requirements:

Minimum: P166, 16 MB, SVGA

Recommended: P200, 32 MB, SVGA 2 MB

V2000

Publisher: Grolier Interactive

Genre: 3D Shooter

V2000 is a 3D action / strategy game following on from the original 80's title 'VIRUS'. The idea

is to navigate your way across the 30 levels spread across 6 different worlds. Finding pickups and awards along the way will help to upgrade your craft and traverse your way through the ranks.

Requirements:

Minimum: P90, 16 MB, SVGA

Recommended: P166, 32 MB, 3D Card

Vegas Games 2000

Publisher: 3DO

Genre: Casino

Fancy yourself a highroller?

Vegas Games 2000 features new high resolution graphics, familiar games, a simple interface, and multiplayer capabilities. Have a gamble, at least with this demo you won't be losing your shirt.

Requirements:

Minimum: P90, 16MB, SVGA

Recommended: P166, 32MB, SVGA

Viper Racing

Publisher: Sierra

Genre: Driving Sim

With Viper Racing, players earn

money in a driving "career" to upgrade their sports cars, and can eventually land the monstrous, 700-horsepower Dodge Viper GTS-R. By competing in different races, drivers work their way up through four classes in the Viper Racing League (VRL), and can gradually earn more than 40 different Viper upgrades, from poly brushings to carbon fibre brake pads. Take it for a test drive today.

Requirements:

Minimum: P166, 32 MB, SVGA

Recommended: P233, 64 MB, SVGA, 3D



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ENTERTAINMENT TECHNOLOGY

Wicked3D Vengeance



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Wicked3D Voodoo2



Fully loaded with 12MB of high speed EDO DRAM the Wicked3D will give up to 40% better performance on Direct3D games than other Voodoo2 based graphics cards. The Re2Flex technology shatters the 800x600 (1024x768 SLI) barrier by providing resolutions up to 1024x672 or 1024x1024 in SLI. Support for 160 games with H3D Eyewear in stereoscopic 3D.

Wicked3D Vision



Take your game experience to new heights with the 3D Wicked Vision H3D wireless LCD Eyewear system! When coupled with the Wicked3D Voodoo2 or Vengeance, over 160 of the latest games are supported including Quake 2 Jedi Knight, Unreal, Need For Speed 3 and more.

ENTERTAINMENT TECHNOLOGY	MINDFLUX	PARAGON SYSTEMS	AUDIO VISUAL METRO	HARVEY NORMAN	WORLD OF COMPUTERS
VIC (03) 9593 3579	SYD	MEL	MEL	PORT MACQUARIE	QLD
SYD (07) 3893 4565	(02) 9416 9619	(03) 9563 2299	(03) 9752 6242	(02) 6581 0038	(07) 5597 3260

SIDELINES

Despite the release of a few controversial titles last year, it was fairly quiet compared to the furor that erupted over Carmageddon et al previously. Still, the American body, the "National Institute on Media and the Family" (NIMF) has released a report on the games that were released in 1998, and it wasn't a particularly positive report either. According to the report, there is a growing trend for companies to market 'mature' games towards children. Also, the report found that most retailers were all but ignoring the voluntary rating system from distributors, and selling Mature (17 years or above) products to people of any age. Most surprisingly, of the 50 games that were rated in the report, there were 4 games deemed to be inappropriate for children of any age - including Unreal and Starcraft, two of the top selling games last year.

Thrustmaster, masters of sticks of joy, are branching out into other areas. They have recently released what they're calling 'Talk'n'Play', software, which enables up to four players to talk to each other whilst they play an online multiplayer game. The system makes use of Intel's Multi-Point Audio software, and the Talk n' Play Instant Messenger software system developed by PeopleLink. The retail version of the package will come with a headset microphone, plus 14 games from WON.net (including golf, card, and board games!). There's no definite release in Australia as yet, but with the growing number of companies releasing voice enabler software for multiplayer gaming, it really is beginning to look like this might be the 'Next Big Thing'© in gaming.

The team at Valve Software, creators of the magnificent Half-Life have shown that they are prepared to support quality mod creators - Team Fortress should be out for Half-Life by the time you read this, for example. Action Quake 2 was one of the most popular mods for Q2 around the place, and the news is that Valve will be releasing Action Half-Life soon. Action Half-Life will be a mod that tries to give Half-Life a slightly more realistic feel, removing power-ups like health and HEV stations, and adding features such as silencers, laser sights, bulletproof vests and so on. The team behind the 'Action' mods have drawn their inspiration from action films such as the oeuvre of John Woo - and if that doesn't get you excited, there's something wrong with you.

EVERYTHING OLD IS NEW AGAIN

Doesn't it seem like Doom is a quarter-century old or something? Actually, it's not nearly that old; but the venerable breakthrough shooter had its fifth birthday in December, and it got a big present - a facelift that brings 3D acceleration to the entire Doom franchise.

You'll need a copy of one of the Doooms and a 3D card to use glDoom, a patch by Bruce Lewis that gives Doom an accelerator shot in the arm. Thank Lewis, of course, and id Software for releasing the Doom source code that made Lewis's work possible. "I wanted to update the technology of Doom," Lewis says. "It's a great game but in this day of 800x600 resolution games running on 3D accelerators it was beginning to look 'dated'". No kidding.

One consequence of glDoom is that it also brings Doom into



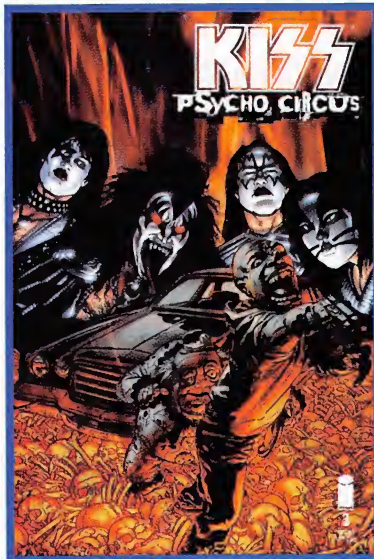
the land of modern system requirements. Although you can run it on a machine as small as a 133MHz Pentium with 16MB of RAM and a 3D accelerator card with OpenGL drivers, it'll proba-

bly suck. Lewis recommends 166Mhz or higher Pentium with 64MB of RAM, and a 3D accelerator card with native OpenGL drivers (not a Direct3D wrapper).

ROCK AND ROLL ALL NITE, PLAY EVERY DAY

Whatever else you think of culture coming from the States, we should probably apologise for the infestation known as KISS. Now, the never-say-die dudes who've merged grease-paint, ear-splitting rock and savvy merchandising into an entertainment empire are adding the inevitable to their product arsenal - a PC action game based on their newest album, Psycho Circus, and the Todd McFarlane KISS: Psycho Circus line of comics and action figures.

KISS is going for some quality, though, inking Bloodshot Entertainment to put together the title. The company is composed of the ION Storm refugees who left the Daikatana project last November, formed Bloodshot and hooked up with Gathering of Developers. Just imagine the weapons these guys could come up with - would you like to use head KISS honcho Gene Simmons's famed fire-spitting



to roast a baddie? Sure you would.

"Our shows are a sensory ambush - filled with hard-core rock and roll, cutting-edge technology, and in-your-face action," says Simmons. "We are working with Bloodshot to convey that same raw electric excitement in this game."

HOT GAME TITLES COMING TO LINUX

It's not just in the courts of the US where Microsoft is feeling heat these days. An increasing audience - and quite a few developers - are beginning to look to Linux, as a way to break the Windows stranglehold on PC gaming. Although much of the Linux gaming world is a few years back in terms of game quality, events are picking up speed quickly.

For one thing, you didn't think the Quake community was going to let this be, right? Because of its use of OpenGL instead of DirectX, id Software itself has been able to provide Linux ports for Quake I/II, including QuakeWorld Linux servers. (There's plenty of how-to at www.linuxquake.com.) Now, California-based developers Loki Entertainment say they're in talks with several game developers to bring other A-level games over to the Linux platform.

Not that you have to wait. Starcraft and Ultima Online are two other games that you can play under various Linux environments. In addition, a Windows emulator for Linux called Wine has plenty of hackers toying with running their faves outside of Win 95/98. Myth: The Fallen Lords and Unreal are two recent releases that gamers report some success with under Linux, with more being tried out.

VIRUS EXPLOITS WINDOWS' LACK OF SECURITY

"79% of Australian ISPs are infected with Back Orifice". -From the Cult of the Dead Cow homepage.

Back Orifice represents the first real virus threat that can be caught off the Internet. It's far more dangerous than a standard virus which can at worst require your machine to be reformatted. Back Orifice can and will compromise every aspect of security on your machine, right down to sending every keystroke you make to a preconfigured IRC channel - potentially for the entire online world to see.

The first thing to note about Back Orifice is that it's a Trojan, and can only be installed by running it or a program that it has infected. One of the most widespread forms of Back Orifice distribution is to infect animated greeting cards that are so often sent through email. Although electronic Greeting cards are in no way malicious, Back Orifice has turned them into a serious threat.

Once your machine is infected, Back Orifice runs as a server. It is then possible for the client version of the product to connect to your machine. Dynamic IP addressing doesn't help this either - Back Orifice can send infected machine's IP addresses to email, an IRC channel, or the client can scan a series of subnets and find all instances of Back Orifice on an ISP.

The truly terrifying aspect of this program becomes apparent with news that over 52 functions can be performed (not including plugins), including;

- Taking control of DOS via a BO telnet session.
- Removing or deleting a directo-

ry, deleting files.

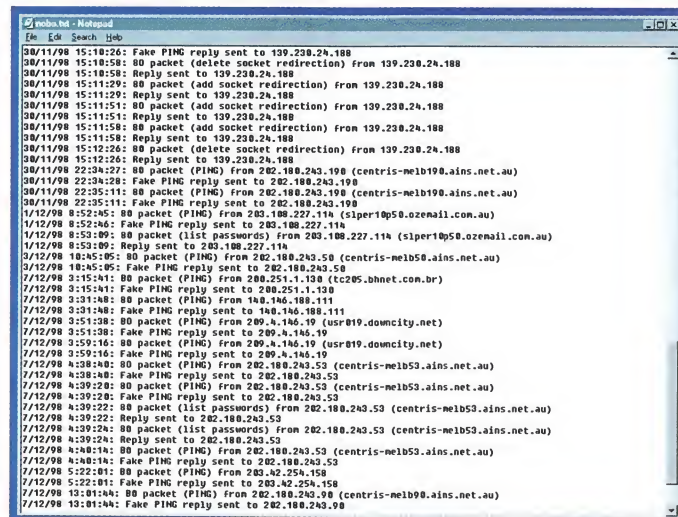
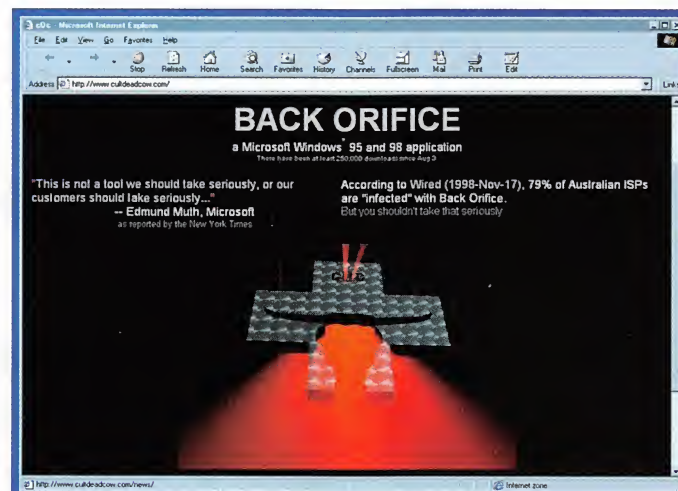
- Viewing the contents of a text file, logging keystrokes on the server machine to a text file (which can be received at a later time - no password is safe from this).

- Capturing an image of the server machine's screen to a bitmap file
- Terminating a running process.
- Redirecting incoming TCP connections or UDP packets to another IP address.
- Deleting a key from the registry.
- Creating a dialog box on the server machine with the supplied text and an 'ok' button. Locking

up the server machine and displaying cached passwords for the current user and the screen saver password.

So, what do Cult of the Dead Cow have to say about releasing such a program? They claim that "Back Orifice does not do anything that the Windows 95/98 operating system was not intended to do. It does not take advantage of any bugs in the operating system or use any undocumented or internal APIs, it just uses documented calls built into Windows".

Jere Lawrence



This is quite serious, and not a hoax. There are a number of programs out there designed purely to block the bastardry that is Back Orifice. We'll include the files on our next cover CD, but in the meantime you can head to the 'Back Orifice Eliminator' at www.bardon.com/boelimdl.htm

SIDELINES

EA Sports have long been known as the strong leader in the market for sport sims. They have the money behind them, and the commitment to quality to attract exclusive licenses from the governing bodies of just about every sport imaginable. 'Just about every sport' has now come one step closer to 'every single professional sport there is' with the news that they have secured the rights to the next cricket and rugby World Cup titles for an undisclosed sum. This follows on the heels of the news that EA Sports had acquired the rights to the next two Football (that's soccer, for the heathens) World Cups, Euro 2000, the German Bundesliga (premier division), and an 8 year addition to the general FIFA license.

Despite Tony Blair's attempts to rid the English people of the peerage system, the Lords and Ladies of the House of Lords have been working hard to prove that they're worthy of their place in parliament. Take this suggestion, from one Lord Sainsbury - he has proposed that lovely Lara Croft of Tomb Raider fame should become the new ambassador for British scientific excellence, because "we need to show that Britain is the home of modern inventors like Crick, Hawking and Dyson". And improbably large breasts, apparently. Rule Britannia!

Australian game The Creed, from Insomniac Entertainment, has received a cautious response from US publishers EA. They're very pleased with the game, apparently, but the language contained within was of some concern to them. A spokesperson has said that some of the dialogue for The Creed is being reworked, and that a new build should be ready soon - so that by the time you read this you should be able to purchase the toned down version of the game from your local retailer.

Dear God, will it never end? Recently yet another hunting 'sim' has been released, and it really seems as though the developers are running out of ideas. Killing innocent deer is one thing (no matter what your personal feelings on the matter), but a game called 'Grand Slam Turkey Hunt' does seem to be taking things a bit too far. It is endorsed by the (American) National Wild Turkey Federation, and offers gamers the chance to bag "the four major turkeys to achieve the highly coveted Grand Slam". Sounds exciting, doesn't it? Gobble gobble gobble...BOOM!

SIDELINES

Giant toy company Hasbro is continuing its move into the world of computer games through acquisitions of development companies, but they aren't the only toy company that's been eyeing the (probably) lucrative computer game market. Mattel recently sprung a bit of a surprise by announcing that they had completed the acquisition of The Learning Company, a parent of Broderbund and publishers of such high profile titles such as Riven and Myst for around US\$3.8 billion. Does this mean we shall likely be seeing more Barbie software titles in the top seller charts in the near future? Probably...

3Dfx has certainly been feeling the heat of competition lately, with the latest video cards from manufacturers such as nVidia and ATI reaping accolades from consumers. 3Dfx has made a significant change in their strategy, and they have acquired graphic card maker STB Systems. As a result, rather than sell 3Dfx's range of chips to card manufacturers, 3Dfx will now be exclusively producing their own boards beginning with the Voodoo3. The response from involved parties has been fairly predictable so far - nVidia has lost one of its largest and best RIVA-based card manufacturers, and Creative and Diamond have lost their access to the Voodoo3. nVidia representatives called the STB acquisition a "desperate act by a desperate company", while a Creative rep said that "we were having trouble fitting the Voodoo3 into our future product line", and Diamond's VP Ken Wirt said that "this will certainly make us a lot closer to nVidia". Is it all a bunch of sour grapes, or have 3Dfx just made a seriously...brave move?

What does the contemporary gaming oriented jetsetter use as a joystick for the laptop while he or she cruises over the Mediterranean in the Concorde? Up until now, nothing. Gravis have recently released a joypad designed expressly for laptops though, so salvation is at hand. Roughly 5 inches wide, 4 inches tall and 1 inch thick, the pad is definitely child sized, and plugs into the serial port rather than the game port (most laptops don't have a game port). Featuring a D-pad (with both digital and analogue modes) and an 8 button array, the pad doesn't skimp on features - as long as you can get your hands around it.

Oops... When we reviewed Wargasm in PCPP #32 we implied that the game would be available as an OEM bundle, not so. Wargasm is a standalone product.

DIAMOND BRING IN APPLE LEGAL EAGLE FOR MP3 CASE

There has been an interesting revelation that has come from the court case between Diamond Multimedia and the RIAA over Diamond's new portable MP3 player.

James M. Burger, a previous Chief Counsel in Apple's legal department has been brought in as a witness to assist in the understanding of the 1992 Audio Home Recording Act. James' involvement in this act, on behalf of Apple and the ITI (Information Technology Industry Council) who had interests in securing computer audio came up with some remarkable victories which have greatly aided in computer and semiconductor freedom.

The first agreement that was decided upon was that the computer industry was not to be dictated to by the government in regard to technical requirements. Obviously manufacturers still have to comply to electronic and radio emission guidelines but efforts to control what the technology should do was stopped. The war regarding copyright raged on but even more victories were made. It was argued that as a computer was a freely programmable device, in order to create copy protection schemes, computer manufacturers would have to make extensive changes to computer architecture and programming, and potentially require computer manufacturers to engage in an ever-escalating and prohibitively expensive effort to "protect" digital recorded data from "hacking".

This legislation was of serious concern because the Committee believed computer technology was still in its infancy and would expand exponentially in speed and capability. By citing evidence that semiconductor capacity has doubled at least every 18 months at no increase in cost any static government regulation would have inhibited innovation.

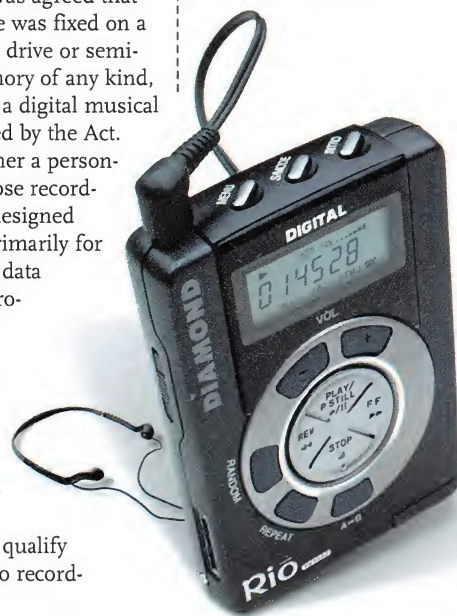
Apple were particularly concerned about legislation affecting technology inhibition and argued that the rapid advance of information technology is exactly the reason the computer industry opposes government regulation of technology. Through this it was concluded that it was ill-advised to

trap any technology affecting computers in legal red tape.

In regard to Diamond's dispute with the RIAA over digital audio, James Burger has provided more evidence on behalf of the ITI. In 1992, under Section 1001(5)(b)(ii) it was agreed that once a music file was fixed on a computer's hard drive or semi-permanent memory of any kind, it was no longer a digital musical recording covered by the Act.

Similarly, neither a personal computer whose recording function is designed and marketed primarily for the recording of data and computer programs, nor a machine whose recording function is designed and marketed for the primary purpose of copying multimedia products, would qualify as a 'digital audio recording device.'

From this evidence, Diamond ultimately appear to have the upper hand. The Rio does not record MP3 files, but receives them transferred from a computer - which is established not to be a digital recording device.



TOP TEN GAMES

Rank	Title
Developer / Distributor	
TW	LW
1	1 HALF-LIFE Sierra / Wolf
2	5 NEED FOR SPEED 3 Electronic Arts / EA
3	9 COLIN McRAE RALLY Codemasters / Ozisoft
4	3 SIN Activision / Activision
5	7 LINKS 99 Access / Ozisoft
6	6 RAINBOW 6 Red Storm / Directsoft
7	2 COMBAT FLIGHT SIM Microsoft / Various
8	14 FIFA 99 EA Sports / EA
9	8 CAESAR III Sierra / Wolf
10	4 FALLOUT 2 Interplay / EA

Week ending 6th December, 1998

The ACER best selling charts are carefully compiled from a sample panel of retailers selected across Australia including mass merchants, department stores, specialty software stores and independent outlets. Retailers surveyed include Myer Grace Bros, K Mart, Target, Big W, Harvey Norman Computer Super stores, Hi-Tech World, Video Games Heaven, Games Wizards, Hedlam Computers, and Software Today. ACER assumes no responsibility for any errors or omissions.

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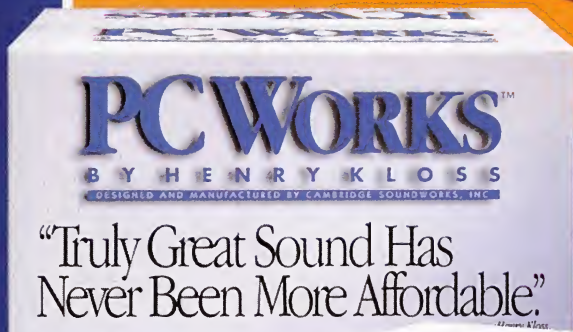
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ASUS 3400TNT

3D Accelerator

Specifications:

Chipset : Riva TNT Dual 2D/3D AGP accelerator.

Additional features : TV In and Out

RRP: \$425

Asus AGP V3400TNT

Features:

- nVidia Riva TNT 128 chipset
- AGP 2x Support
- 16MB SDRAM
- 250MHz RAMDAC
- SVHS & Composite video in / video out connectors
- DirectX6 compliance
- OpenGL (ICD) support w/ Win 9x & NT

Maximum Resolutions:

2D - 1920 x 1200 @ 16.7 million colours, 75Hz

3D - 1920 x 1200 @ 16bpp (double buffered with Z-buffer) or

3D - 1920 x 1080 @ 32bpp (double buffered)

Hardware 3D features:

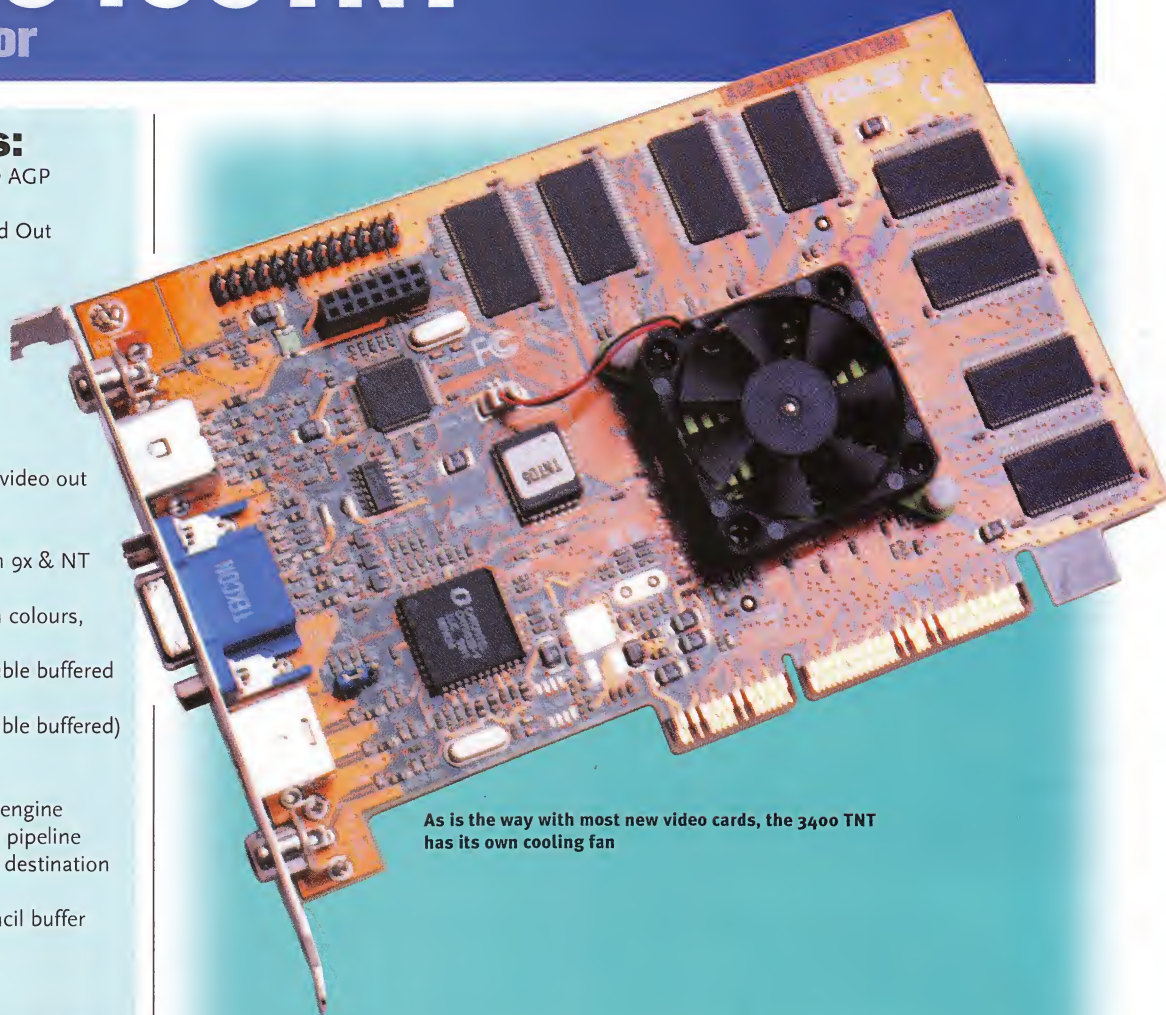
- 100% hardware triangle setup engine
- Twin texel/pixel 32-bit graphics pipeline
- 16/32 bit ARGB rendering with destination alpha
- 16/24 bit z-buffering, 8 bit stencil buffer
- Anisotropic filtering
- Texture blend support
- Backend blend
- Per pixel perspective correct texture mapping
- Anti-aliasing: full scene, order independent

In Powerplay we've spoken about the Riva TNT numerous times, but until now we haven't had the opportunity to fully utilise one. Now that the chance has been taken, it has to be said that the Riva TNT is an extraordinary 3D accelerator and actually lives up to all the hype. More so, the Asus incarnation of the TNT featuring both TV In and Out is the best form of TNT you can get.

The Riva TNT chipset is one of the new second generation cards that utilises 32bpp colour, which is twice the palette of the 3Dfx. Despite numerous arguments citing that 16, 24 and 32bpp colour is virtually impossible to tell apart, it does have to be said that the Riva TNT brings a certain blazing zest to all colour encountered in games. Particularly in contrasting colours such as a subtle blue next to a flaring red.

More than just colour, bilinear filtering, mip mapping, detail fogging, bump mapping, translucency, it's all in the TNT, looking fantastic and running even faster. The best way to describe a TNT in terms of visuals is to say that it looks just like a Voodoo 2, only with sharper colours.

Performance, one of the primary functions of a video card is outstanding on the



As is the way with most new video cards, the 3400 TNT has its own cooling fan

Riva TNT. In terms of 2D, there's nothing to complain about. In 3D acceleration the TNT is in fact faster than a Voodoo 2, significantly. In all tests, the Riva would range from being 53% (texture blitting) faster to its lowest increase of approximately 14% faster (polygon throughput). It's worth remembering, however, that 2 Voodoo 2's in SLI are still considerably faster than the Riva. However in a 1 for 1 battle, the Riva comes out on top.

Maximum 3D resolution for the TNT is a delightful surprise - 1600 x 1200. Although no games are actually playable at this res (at least on a P2 350) it's still rather an achievement. For performance and image quality, 1024 x 768 is about the best resolution in which things run very smoothly.

An aspect particular to the ASUS 3400TNT, and a welcome one at that is the inclusion of TV In and Out. TV Out for a while may have seemed like a step backwards. Sort of back to the days of the Amiga and Atari ST's plugged into TV's because we couldn't afford monitors. These days however, TV Out offers a particular advantage considering the (potential) DVD revolution.

The Riva has software accelerated DVD playback that on a P2 266 and higher should allow for full frame rate playback. With TV Out, it's now possible to hire a DVD movie (becoming more available in video stores) and output it to your TV with excellent quality.

TV In on the Asus card is particularly acceptable however suffers from the now standard problem of maximum input resolution. Except for the Rendition Verite V2X00 which could play incoming video in a window at any resolution, the 3400 TNT can only offer this at 1024 x 768. This is however only a problem if you run your desktop above 1024 as you'll need to "throttle back" in order to watch incoming video.

Although the Asus 3400 TNT is the first Riva we've had a chance to look at, it still has to be concluded that this is an exceptional product. Not just for the extraordinary Riva chipset but the excellent addition of TV In and TV Out, making this the perfect primary video card for any system.

Jere Lawrence

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RRP: \$7299

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Good old IBM, they truly understand our needs best. Why does nobody else make black PCs? Black with cool flat screen monitors and bits that pop up and poke out. Fantastic machine this, if you're #1 priority is showing off.

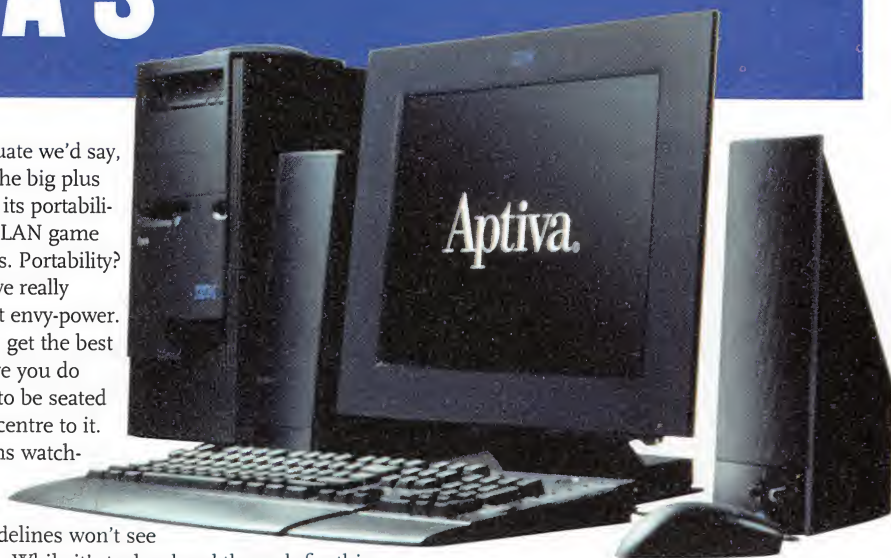
What of the performance though? IBM have included the fastest CPU available - the PII 450/512k. That'll do nicely. The entire system, in fact, is built from only premium components: 128 MB, 16.8GB HDD, 16-bit SRS 3D Stereo Sound, DVD with software movie playback, Hardware accelerated ATI Rage Pro 3D Graphics with Direct 3D and Wavetable Audio.

Of course, the big curiosity is the TFT (Thin Film Transistor) flat screen monitor. When we tested the Aptiva S this was the bit we were most interested in - it was unpacked first and plugged straight into a powered-up work PC. Well, there's good and bad with everything... The good is that this is the first flat screen monitor we've seen that is actually usable. It'll run up to 1024 x 768 in full 32-bit colour.

Adequate we'd say, with the big plus being its portability for LAN game parties. Portability? OK, we really meant envy-power.

To get the best picture you do need to be seated dead centre to it. Chums watching from the sidelines won't see much. While it's truly a breakthrough for this technology, you are aware the whole time that it's not a CRT (Cathode Ray Tube) monitor. Individual pixels are easily discernable and screen refreshes are too noticeable. Our sad conclusion has to be that flat-screens are not yet game-ready. Gamers want absolute quality and nothing comes close to CRT for that.

But, because it looks so damn hot, we like it. Perhaps this would be best set up in the living room for all to admire - the family could all use it for those recipe programs and home budget manager programs that nobody actually uses...



Because it looks incredible. That's all.

SONIC STORM PRO

VIDEOLOGIC • RRP: \$149

Specifications:

Chipset: Vortex 1

Polyphony: 64 instruments or simultaneous notes.

Effects: Reverb, Chorus.

Full Duplex: Yes

Sample Rate: 5Hz - 48Khz

Front and Rear speaker support: No

The quagmire of computer hardware journalism! Whatever do you say about old technology? Is it suddenly bad just because something newer, better and more expensive is suddenly available? That said and mustering as much enthusiasm as possible, the Videologic Sonic Storm Pro is another in the plethora of soundcards now available that feature the Vortex 1 chipset.

The Vortex 1 chips are indeed a fine sound specimen, as stereo separation is extraordinarily good for a 2 speaker only solution. The Sonic Storm Pro delivers sound with a crispness and clarity that once was considered outstanding, but now when compared to the second generation sound cards, is really only average.

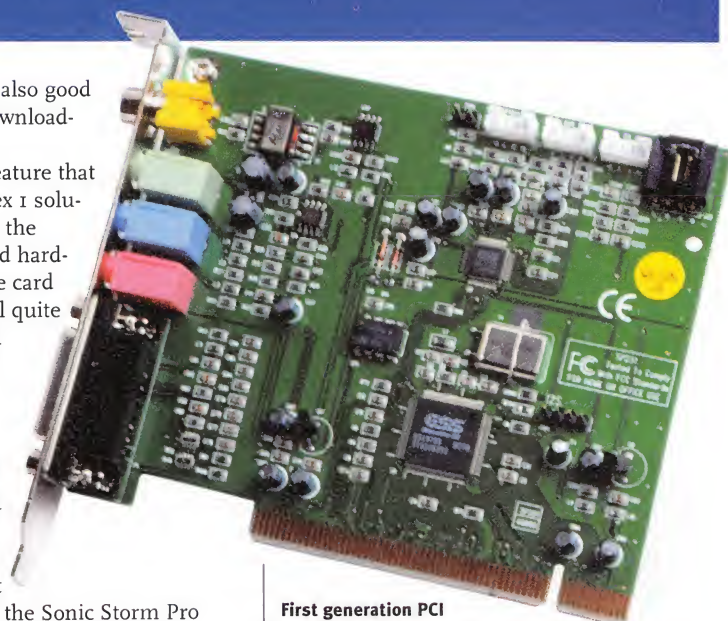
Wave output is good allowing for discernment between 128 Kilobit and 192 Kilobit

output, and MIDI is also good using wave based downloadable instruments.

Potentially, the feature that still makes the Vortex 1 solutions a viable one, is the Aureal 3D effects and hardware acceleration the card offers. These are still quite sensational and with only 2 speakers can emulate rear, above and below sounds particularly well.

Ultimately, if you still have a SB16 and haven't got a PCI sound card yet and are on a tight budget then subject to price the Sonic Storm Pro would be a good choice. Realistically however, we're now in the time of second generation sound cards that offer incredible quality sound with 4 speaker digital surround solutions - and this would have to be the hardcore gamer's first point of call.

Jere Lawrence



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 PCPLAT/FPC01JUSTMEDIA

GATEWAY 2000 GX-450

RRP: \$6499

Specifications:

- Intel Pentium II Xeon processor with 512k cache (running at core speed)
- 128MB SDRAM (512MB maximum)
- VX900 19" Trinitron Monitor
- 16MB STB nVidia TNT AGP graphics card
- Sound Blaster Audio PCI 64D Sound card
- 14.4 GB Ultra ATA Hard Drive
- DVD-ROM (3x)
- Phillips CD-R (recordable/rewritable)
- Boston Acoustics Digital Media Theatre speaker (2 satellites, one subwoofer)
- Full Tower Case
- 56Kb Data/Fax modem
- MS Office 97 (small business edition)
- Lifetime hotline support
- 50 hours free with Telstra Bigpond

Woh! Do we really need to say anything else? Sure, if you were to pick up one of these beastly machines to play your games on you would be getting very close to overkill territory, but you can never have a machine that's too fast or too grunty. The asking price is rather high, admittedly, but you'd have the fastest machine on the block, guaranteed. And you wouldn't even have to think about upgrading for a good long while either - like about two years. Think of it as an

investment, an investment in pure happiness.

Seriously, looking at the specifications, you'd be hard pressed to find any component that you would want to replace.

And if you open the case up and have a look at the processor and heatsink - well, you're looking at a serious piece of work. The only thing we might be tempted to add on would be a couple of Voodoo 2's in SLI mode, but the TNT is perfectly capable of running any game you would want to throw at it almost as well. And perhaps a 10/100 Network card wouldn't go astray either. But this is the top of Gateway's range, for 'Home Gamestations', and deservedly so. Beg, borrow, steal, or blackmail Santa into getting you one. You'll never, ever, look back.



Safe and friendly family computing

WINGMAN INTERCEPTOR

LOGITECH · RRP: \$129

Being the season for flight sims, we suggest you look at your current joystick in a new light. You see, new sim technology requires new stick technology, which is what the new Logitech Wingman Interceptor is.

As is the way with most new sticks, this is an all-in-one job, as opposed to the older (better) style of having a separate throttle unit. This appears to be the new way of the world, with only Saitek left making separate stick and throttle units - Thrustmaster gear is still fine, but it's 10 year old technology and design... Wake up, Thrustmaster! Functionally, it makes zero difference whether you're using a single unit or the proper HOTAS (Hands On Throttle And Stick) setup - other than the latter makes you feel damn cool.

Oh well, as far as the new sticks go, this is the best around. We've been testing the Interceptor hard with the new sims, and after a month of solid hand-on-stick work, we can safely recommend the Interceptor as a top bit of gear.

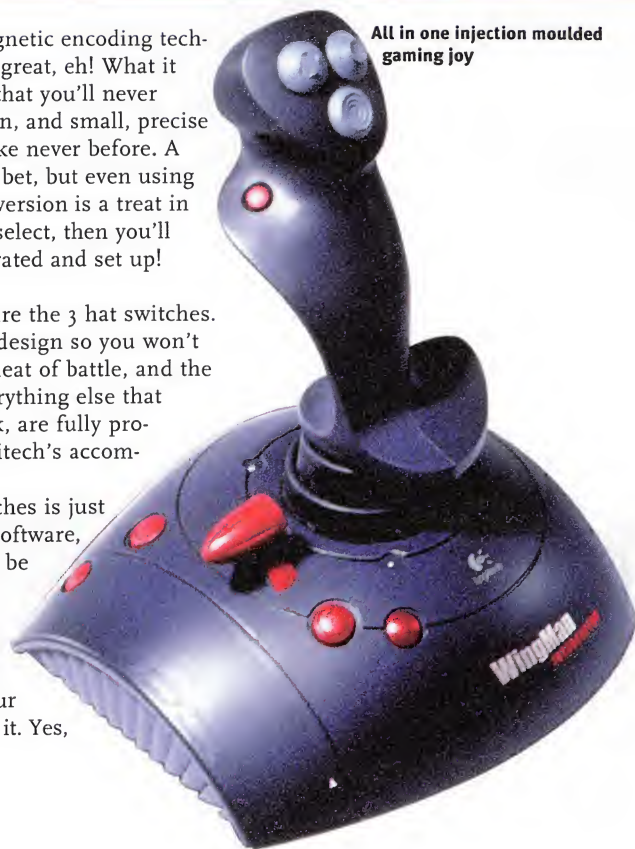
There are no potentiometers in the Interceptor. Instead movement is detected via a magnetic field generated by

Logitech's 'Net-2 magnetic encoding technology'. Yep, sounds great, eh! What it means in practise is that you'll never need to calibrate again, and small, precise inputs are possible like never before. A USB version is a fair bet, but even using the standard joystick version is a treat in simplicity. Plug and select, then you'll find everything calibrated and set up! Lovely stuff.

Most impressive are the 3 hat switches. Each has a different design so you won't get confused in the heat of battle, and the hats - along with everything else that pokes out of the stick, are fully programmable with Logitech's accompanying software.

Having 3 hat switches is just fantastic. Using the software, their movements can be mapped to whatever game-function suits.

The Interceptor looks great, has a tiny footprint and defied our best attempts to break it. Yes, good indeed.



All in one injection moulded gaming joy

DESKTOP THEATRE 5.1

CAMBRIDGE SOUNDWORKS • RRP: \$950 (approx)

The latest speaker release to come from the Creative owned Cambridge Soundworks is the Desktop Theatre 5.1 system. There's something very exciting about this piece of hardware, for not only is it a surround sound system for games but also a complete Dolby AC-3 decoder as well.

For those unaccustomed, Dolby Digital AC-3 is a surround format that provides six separate channels of digital sound. The six discrete channels support the left front, centre and right front speakers along with separate channels for the two rear speakers and subwoofer. AC-3 also offers the advantage of eliminating "data" that people cannot hear while maintaining all the data that people can listen to, offering the highest quality soundtrack audio available.

Consisting of 5 satellite speakers, a centre speaker and the awesome Cambridge subwoofer, this speaker system rivals expensive Dolby Digital home theatre sound systems. The kit also comes with a beefy control unit with that offers features such as dual-language control and karaoke vocal/music separation in VCDs so you can sing your heart out if you so choose.

The Desktop 5.1 system can also upmix stereo to 5.1-channel surround providing



The Rolls Royce of PC gaming audio

multiple-speaker enhancement with any 2-channel sound card. For SB Live!, Vortex 2 owners, or other 4 speaker discrete sound cards, full positional audio is also supported. For SB Live! owners, a new patch to the drivers has been released that allows the card to output fully compatible Dolby 5.1 sound, ideal for these speakers.

This is essentially the premier speaker system for game enthusiasts. Not only can DVD now be played back in complete Dolby Surround but games that take advantage of Dolby are also fully supported.

A NEW ADVANTAGE

FERRARO RE-RELEASE • RRP: \$399

The wondrous Ferraro Advantage 1 (previous winner of 'Hot Hardware' awards) has been re-released with some design improvements. Among these, are improved switches for gear-changing, plus the all-new pedal design. You can now buy the Advantage 1 with a choice of Red, Grey or Chrome pedals. We like the chrome best... The Ferraro still has the best 'feel' of any

wheel out there due to the progressively stiff springs. It's still not Force Feedback, which is a good thing in our book, as we're yet to try a Force Feedback wheel we could live with. Give it a year or two... Available at all games shops, up to \$399 RRP. www.ferrarodesign.com.au



(right) Before... (left) All new! It's hard to improve on perfection, so we're happy with subtle enhancements





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ART DIR 9719

AMD

PCPP's technical gurus Garry Wallis & Jere Lawrence go head to head with the bigwigs from AMD about the present and the future for 'the Gamer's CPU'

PC Gaming has been through a tremendous technology ride of late. We've seen the emergence of 3D accelerators - and momentarily seen the decline of the dreaded CPU upgrade. As 3D accelerators have become more powerful though, we're again seeing a need for processor upgrades. Thankfully, companies such as AMD are working for us, the gamer. Processors such as the K6-2 with 3D Now! are designed for extraordinary floating point performance, which our 3D games and accelerators need.

In fact, targeting the gamer is more than just a whim for AMD, it's their latest market strategy. They think that through the games playing people of today will come the business opportunities of tomorrow. Garry Wallis and Jere Lawrence spoke with Steven Fraser of AMD Australia and Ivlynn Yap Cheng Theng, the Public Relations Manager for AMD South Asia Pacific to find out just what their plans are.

GW: I understand you guys are selling processors to IBM now?

AMD: Yes, IBM has picked up AMD processors which they use in a particular line of their systems but that's not really a local deal though. In the world we have six of the top ten corporate OEMs using our processors. There's IBM, Compaq, Hewlett Packard, Acer, Packard Bell and Fujitsu.

GW: How are these companies responding to the AMD processor?

AMD: We've found that in the consumer PC departments of Hewlett Packard and IBM that systems with AMD processors are really the highest moving systems that they have.

JL: Are there any compatibility issues with the AMD chips like those that the Cyrix ones suffer?

AMD: There's no patches required for AMD processors. They don't suffer the problem the Cyrix's did with their CPUID function which, if I remember correctly on the Windows 95 system was recognised as a 486.

JL: But aren't AMD processors in that respect reliant on the operating system for compatibility?

AMD: Yes, but AMD goes through exten-

sive and vigorous testing to make sure there aren't any compatibility issues. For example, more than 60,000 applications are compatible with the K6 as well as operating systems such as OS/2, Novell and Windows 95 and Windows NT.

GW: Are you finding that the corporate market is seeing the K6 processors in a new light now that the Intel is not doing so well? I remember when I used to work in a corporate department, and they used to tell me to only buy Intel processors.

AMD: It's true that the market is like that. No one gets fired for buying IBM; likewise Intel processors are something people won't get fired for buying. However we're starting to see now that people are sitting up and taking notice of AMD, which comes from our penetration into the games market with 3D Now!. A lot of the IT professionals that work in the industry like to play games as well and they have our processor in their system. These people are in a position to influence the company, especially when asked what they think of AMD. The IT person happy with his AMD processor at home will probably recommend it to the company.

JL: What do you think of this irony that your business acceptance is actually coming from people playing games?

AMD: That's actually a strategic decision that we've made. We're not targeting the games market because it's a huge market, we're targeting it because it's so influential, and one where the speed of the processor is critical. Having a 450Mhz Pentium on a desktop for business applications doesn't make a lot of sense. We have the ability to execute games which are computationally intensive better and at a superior price point. This means the consumer can spend more money on games or a better monitor.

Games with 3D Now! are taking off so fast because 3D Now! technology provides 21 new instructions that enhance the game and reduce the processor requirements needed. With 3D Now! technology, you will be able to see shadows in games.

JL: Isn't it not a matter of being able to see them, but more that 3D Now! offers faster

floating point calculations which means theoretically a developer can add more 3D? Isn't every processor capable of calculating shadows?

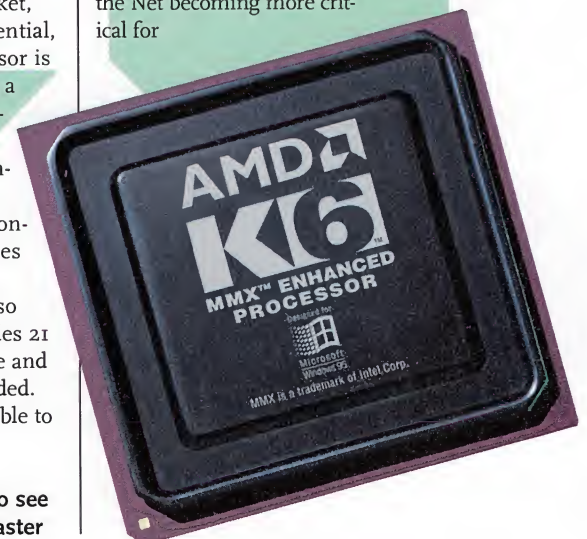
AMD: Yes, but with 3D Now!, we have more features and you can get more detail with a smoother frame rate over other processors. It's not just games though, 3D Now! is being used in other applications, such as Viavoice, the voice recognition software by IBM.

JL: So you really have major support by IBM.

AMD: Yes, IBM and Microsoft. Also support from Open GL, 3Dfx and DirectX 6. In a lot of games that use APIs to interface with the hardware, you don't have to buy a whole new game to support it. Just download the relevant API.

JL: One of IBM's goals is to incorporate voice recognition on a hardware level. Is AMD interested in hardware based voice recognition assistance?

AMD: 3D Now! does this by allowing you to work on 8 values in parallel. This returns 4 results per clock cycle where a Pentium 2 can only do 1. When you've got such intensive types of operations such as voice recognition then 3D Now! greatly assists. In fact, the extra performance offered here will also assist in compression and decompression for Internet digital streams (such as music) and soft DVD. With the Net becoming more critical for



You've gotta love it when a huge corporation starts targetting gamers. People, we have arrived!

business applications, this will also lead us into the corporate market.

JL: Why are 3D Now! frame rate increases so negligible? They're only about 3.5%

AMD: One of the benchmarks we like to bandy around is that in a comparison a K6-2 300 with one Voodoo 2 vs a Pentium II 300 with 2 Voodoo 2s in SLI, AMD exceeds the performance of the Pentium II. It's not about frame rates, it's about the fact that we can perform at a higher level and a cheaper price. Ultimately the K6-2 offers a better performance/price-point for your system.

JL: With the Matrox G200 and 3D Now!, frame rates are significantly greater than on the 3Dfx. We're talking up to 65.5% increases in Quake 2. Why?

AMD: Well, Matrox have really optimised their drivers. They've done a good job for us on that particular card.

JL: So Matrox are utilising 3D Now! extensions better than 3Dfx?

AMD: Yes.

GW: I understand you've recently released the 380 and 400 Mhz K6-2s. How long for them to filter into Australia?

AMD: Any day now. We're shipping those products in the US now. We really are pushing the high end of Intel's envelope. Next year we'll be introducing the K6-3 (name unconfirmed) too, in the first quarter of 1999. The chip will debut at 450 progressing to a 500. The advantage of this chip is that the L2 cache is on the die. At that point we'll be outperforming Pentium II's in standard business applications.

GW: I also noticed that ALI and VIA are going ahead with creating a chipset solution for you.

AMD: The guys that make the motherboards and chipsets like working with us because we're not competing against them. Intel make their own chipsets and motherboards, so subsequently we get a lot of support from chipset and motherboard manufacturers on our product because they don't see us as a competitor, rather a partner.

GW: Weren't you making your own chipsets

at one stage?

AMD: This was because no one had a chipset for the K6, so we had to invent our own to maintain the viability of our solution. When the other companies started making chipsets, they were probably cloning ours. Once there were enough manufacturers, we stopped making ours. We don't want to be in the chipset market. We're actually assisting motherboard manufacturers now with the design for the K7 which runs at a bus speed of 200Mhz, which is a totally different ball park for these guys.

JL: Trespasser was hyped as a very big 3D Now! application, however 3D Now! code isn't complete for it as yet. And the problem is that Trespasser runs slower on an AMD chip without 3D Now! than on an equivalent Pentium II processor.

AMD: That's true, because you're not running the extensions.

JL: So without the advantage, it is slower.

AMD: Yes, that's because it's using the standard floating point unit. We've never been the best performer at floating point. Well, that's to say dual precision floating point, but you don't need that in a game.

JL: So essentially you're reliant on developers adopting your 3D Now! extensions. And that reliance is to your disadvantage if you don't get the kind of support you want.

AMD: That's right, which is why it's important that people write their games to API's such as DirectX because that's a nice software interface between the application and the hardware, making it independent. When you're running a game, you don't need dual precision floating point, it actually slows the whole process down. It doesn't matter if you drop a pixel off every now and then.

JL: Back to Trespasser then. Here's a situation where 3D Now! has been announced as part of the released product but it's been pushed back as a patch. This shows that support at least in this instance is waning.

I'm only bringing up this title because it's an instance where the developers were very keen on 3D Now!, hyping it in their press releases. Now for some reason it's not ready.

AMD: That's a strange decision on their part because we're shipping a stack of product into the market. They should be prioritising their product for our processor because we're more widespread at that performance level.

GW: Are there going to be any changes to 3D Now! in the future such as more pipeline lines, or more instructions?

AMD: Well more pipelines are independent, that's part of the processor architecture. Certainly the K7 will support 3D Now!, but K7 is a totally different architecture. The floating point is re-engineered including double precision. It's a totally new processor and targeted at workstations and the games market. It signals a change in our focus, a widening from just desktop into server workstation areas.

GW: Isn't it also SMP (multi processor capable)?

AMD: Yes on a 200Mhz bus, it's a world beater.

GW: Cryotech has released a system based on the K6-2 at 400 - overclocked to 500 Mhz. Is there going to be any clock locking by AMD?

AMD: We have no plans for clock locking. But the way we make the chips is that they're tested to run at a particular speed. For example, if a chip is tested at 400Mhz and it doesn't run at 400, it's tested at a lower speed until it does run. Ultimately, overclocked chips may work, but it's at the user's peril. Our ultimate goal with this is to get the production process so tight that the same die can consistently yield higher speed processors, which is part of our process improvement.

GW: Is the K7 going to go to 1000Mhz by the year 2000 using a .18 micron process, and are you going to integrate KNI into your processors as well as 3D Now!.

AMD: That's the plan! We don't know what's in KNI but we have licensed MMX in the past, so I'd say it's a possibility. I can't say yes or no definitely.



AMD: A LOOK AHEAD

AMD are playing the advantage. 'Intel Inside' looks to become an antiquated irrelevancy. By Garry Wallis

You've probably already heard me talk about the K6-3 or Sharptooth; as it's commonly known, and you have also probably heard me talk about the K7 processor. What have these new processors got to offer us?

K6-3 Codenamed "Sharptooth"

The truth is AMD have not settled on a name for this processor yet. There is a rumour that it could even be called the K6-2+. What we do know is that the K6-3 should be serious competition for Intel and the Pentium II.

• On-die L2 cache

The K6-3 will, like the new Celeron variants, have its level 2 cache on chip, and will run this cache at core speed. We saw how much difference the newer Celerons performed against the cacheless Celerons. The 128KB of on-die cache allows the newer Celerons to perform very close to the speed of a Pentium II at equivalent clock speeds. The level 2 cache in the K6-3 will also be on-chip but will be double the size of the Celerons.

It's expected that the K6-3 will debut sometime in Q1 of 1999, and should come out at around 400MHz initially. We will try to get our hands on one as soon as we can.

K7

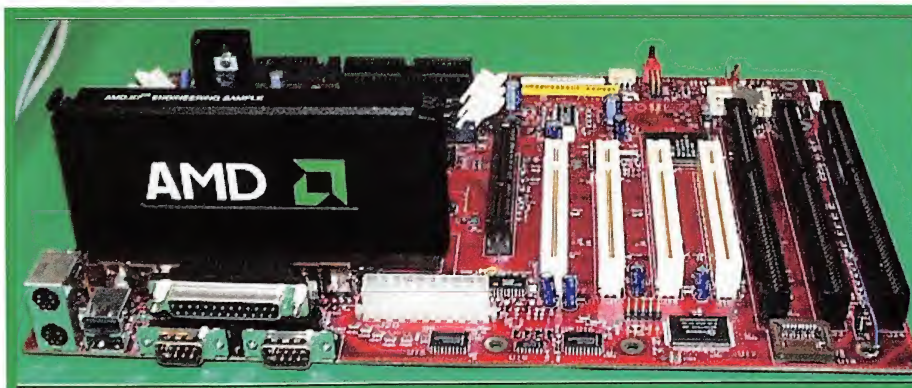
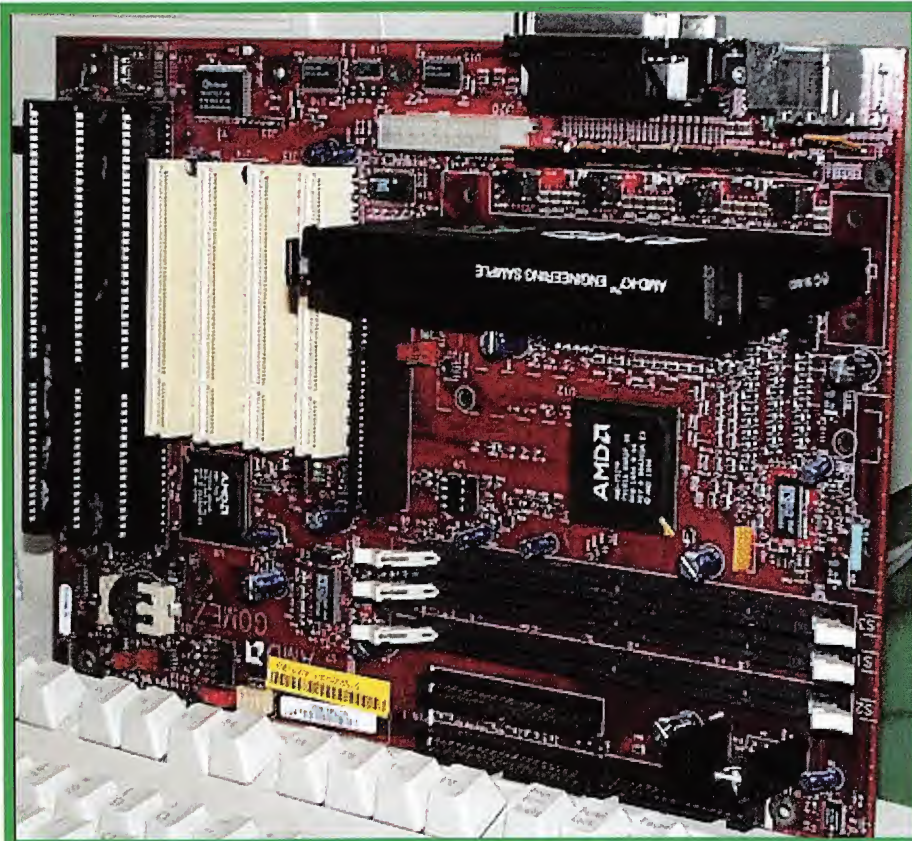
This year's Comdex is the event responsible for the sudden surge in K7 information. The K7 will be the end of Socket 7, and will utilise a SEC cartridge system similar to the Pentium II.

• Which bus do I catch?

Although the actual slot is similar the way the processor talks to the rest of the system is very different. Instead of the DIB (Dual Independent Bus) scheme that the Pentium II uses, the K7 will use the EV6 bus protocol from Compaq/Digital Alpha. This will allow the K7 to debut at 500MHz with a 2.5 x multiplier, that means a 200MHz system bus speed! Katmai; Intel's, next gen processor, will only debut with a 133MHz system bus. Wait, I hear you cry, we don't have 200MHz SDRAM, how is that going to work? Well, the K7 will be able to read to banks of 100MHz SDRAM simultaneously.

• Cache 1 and 2

The K7 will also include a whopping 128KB of level 1 cache, this should provide a nice little boost as both the K6-2 and Sharptooth have only 64KB. The level 2 cache of the K7 will reside on the SEC cartridge ala Pentium II and initially will run at 1/3 core speed. The size will range from 512KB to 8MB in the high end server versions of the K7. Later AMD plan to release versions of the K7 with level 2 cache that



runs at 1/2 core speed and versions that run at core speed.

• FPU supreme

AMD certainly knows about the fact that the K6 and the K6-2 have weak double precision floating point performance when compared to a Pentium II and totally abysmal when compared to an ALPHA processor. AMD plan to change this with the K7, which will feature a dual issue fully pipelined FPU. Unlike the Pentium II, this also has a pipelined Multiplier, not just the adder. Effectively this means the K7 can effectively perform at around 1GFLOP (1 Billion Floating Point Operations Per second). That's damn fast and should totally kick arse in FPU orientated games (i.e. 3D).

AMD's new K7 CPU looks very much like a Pentium II SEC cartridge. In fact, the actual slot; Called SlotA for the K7, is mechanically identical to Intel's Slot1. Although this may be true, Pentium II and K7 chips will not work on the same motherboards, although some rumours are going around the K7 motherboards will be able to accept Compaq/Digital's mighty Alpha processors! Cool eh!

Show me the processor!

It's all well and good to tout awesome specs but that means nothing until you actually have some silicon to prove the claims. At Comdex AMD showed a select few a K7 system fully operational and running at 2.5 x 200, 500MHZ!

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team fortress 2[®]

Australian freeware Quake TC becomes official add-on to best FPS game ever. By Rod 'Spoonman' Campbell



All the graphical and technical excellence of Half-Life with the depth of gameplay of TF. This is going to be incredible!

The success of Team Fortress for Quake has been amazing. A few Australian programmers making a Quake Total Conversion might not seem anything special, but Team Fortress blew everyone away with its complexity, balanced player classes and its ability to incorporate some strategy elements into what was generally a "find the rockets first" game. Not bad for a third party modification.

Now, with Team Fortress II, the developers are going all out to give us a more challenging and immersive experience than ever before. Early in the development TFS (the group behind Team Fortress) decided that to provide the best game possible they were going to have to

charge for it, and TF2 would act just like your regular mission pack. Unfortunately TF2 was being developed for Quake 2 at the time, and id weren't particularly pleased about third party developers making money off their game, which is part of the reason why TF2 is now coming out as an official Half-Life add-on pack.

So far release dates are not confirmed, the only word is that it will be out a "few weeks after Half-Life". Hopefully precious few, because this game is going to rock hard.

TF2's feature list is very impressive, firstly, the maps for TF2 will be far and away better than for TF1. While the TF1 maps were all generally very functional, they were never really much to look at. TF2 will feature

around 20 beautifully crafted maps for 8-32 and possibly 64 players, although you'd have to doubt that too many people will get to experience 64 player TF mayhem.

Of course, visually the game should be up to the standard of Half-Life and the screenshots shown here reinforce that idea, especially the outdoor ones. Another great addition to the game will be vehicles. Yes that's right, you can drive APCs, Tanks and even Helicopters around while destroying the enemy. Speaking of "the enemy", if you haven't got enough players to make a full scale war simply add a few bots into the game, these robots will follow your orders (we hope) and every effort is being made to have them play as a team and act intelligently. Let's

only hope they pull it off.

The player classes have been redefined but are still fairly similar to the original, the only player class which has been totally destroyed is that of the Pyro. The reason for this is so that they can make a more realistic battle ground. In addition is a new "commander" style class, who doesn't actually go into battle but directs the troops from above. Here's a run down of the other player classes.

Light Infantry

These Infantry are very lightly armoured, but run faster than anyone. Weapon-wise they carry the most powerful hit-location



damage weapon in the game. This means that if you shoot someone in the head with this (as yet unnamed) weapon, it's going to hurt a lot. They can fire on the run but have a range of only about 100 metres.

Medium Infantry/Field Medic

While Medium Infantry are slower than Light Infantry they also have long range capabilities in the form of an M16-A2, which is both a semi and full automatic weapon in different modes. As the name would suggest, this player also has healing abilities due to the combination with the Field Medic.

Heavy Infantry

Near enough to a walking weapons platform. For starters he carries a M240G: belt-fed with 100-shot clips. The thing about this weapon is that you have to crouch when firing to get any accuracy. This player will generally need quite a bit of back up, because even though they spit out a lot of bullets in a short time they could generally be run off their feet by a lighter class. This guy is the Big Gun of TF2.

Rocket Infantry

This player could be compared to the basic soldier of TF, but his RPG-style rocket launcher is just way cooler. When fired, a ten metre backwash comes out the back as well as the rocket out the front, proba-

bly not the best player to be using with some friends standing behind you.

Sniper

The Sniper has probably been changed the least, its accuracy and one shot kills are still second to none. After all, everyone loved the sniper from TF.

Commando

The Commando is basically a revamped Demo Man. He has in his care quite a few different types of explosives, including Pipe Bombs and C4 charges which he can remotely detonate, along with everything else in the vicinity. Otherwise we're not sure what weapons he'll use, but you would have to expect some sort of grenades, as well as a bullet type weapon of some sort.

Spy

While remaining much like the original Spy from TF there are a few slight changes. The Spy has the ability to disguise himself, but this time he doesn't lose his disguise immediately when shooting. In fact, if he kills all visible enemies very quickly without them calling for back up

then he doesn't lose his disguise at all, and thus it is much easier to pick off the enemy.

Engineer

While the concept of the Engineer is the same the implementation is now quite different. Instead of using metal it now uses energy, and you can build as many things as you want. There is however a theoretical limit to the number of things like Sentry guns which can be placed around. If, for example, you had three Sentries guarding your base that are always emitting heavy fire you'll run out of energy fast. You can however build power station type struc-

tures to restock your energy. There will be a number of new buildings you can make, all of which are being kept under wraps at this time. It appears though, that the Engineer will be a major factor in every team due to his construction abilities and new features.

All in all we can't wait for Team Fortress 2, the level of commitment from the developers should make a team play experience second to none. If you don't own Half-Life yet, then here is your reason to go out and buy it today.

Special thanks to Robert Blake (Gunny), at TF2.com



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game workshop

Practise programming for prospective game developers. By James McCutcheon

Part 1. Understanding DirectDraw

Project: Make a donut!
Difficulty: Intermediate
Requires: Basic understanding of C++

Welcome to a new section of PC PowerPlay where I will be trying to help those who would like to develop their own game achieve this goal. I will be assuming that you have a working understanding of the programming language C++, but don't despair if you don't as you should still be able to follow the text and even run the example programs that are on the CD. My examples will be using Microsoft's Visual C++ compiler because that is my preferred compiler, but if you prefer another compiler that's fine. You should be able to convert them over without too much trouble.



What is Direct X?

The best place for any new developer to start is to try and understand Direct X (DX). If you have not heard of DX before this then you have not played a game for a long, long time.

When Windows 95 was released most game developers freaked because developers and game players were used to the speed that direct control over the hardware gave them, and to put it simply; 95 just got in the way when we wanted to write fast code. Microsoft's solution is DX which is a Application Program Interface (API) that allows developers direct access to the hardware. The first few versions were pretty buggy and horrible, but by the time v3 rolled out things were getting good and now with v6 here, most concerns are addressed and you have one cool interface that every game developer can enjoy.

SOFTWARE TOOLS ON THE CD!

Look in the 'Workshop' directory of this month's Cover CD for the files and software James is discussing.

DX also brought another revolution to games, the era of multiplayer and great AI's. DX is sort of half a pipe. Basically programmers write code and simply send instructions down this pipe not caring what is on the other end. Hardware manufacturers and programmers build DX drivers which become the other end of the pipe, simply taking the instructions being sent down the pipe from the application and passing them onto their physical boards, and since nobody knows their board like they do, the driver should become more robust.

What this means is that game developers no longer have to write machine code specific for each piece of hardware and instead can spend their time and budget building better AI and introducing more features.

DIRECTX IN DETAIL

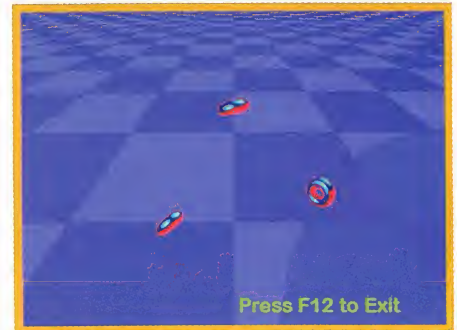
DX is made up of six components which include: DirectDraw, DirectSound, DirectPlay, Direct3D, DirectInput and AutoPlay. The part that I am going to focus on at first is DirectDraw (DD) because it would have the broadest appeal and gives initially the greatest performance boost. DD is used for things like 2D animations, tiled or scrolling platforms and title screens where the coder needs to make use of the video board's blitting and buffer flipping capabilities.

DirectDraw

DD is made up of four objects: DirectDraw, DirectDrawSurface, DirectDrawPalette and DirectDrawClipper. It is important to note that only one DirectDraw object can be created per application for each logical display device. The DirectDrawSurface object can represent the on-screen window buffer or any number of off-screen buffers for different graphical elements.

Even sprites can be created using a DirectDrawSurface. Each DirectDrawSurface has a DirectDrawPalette which represents an indexed palette. This of course means that one application can have many palettes which brings its own fun in resource management. The DirectDrawClipper object is used to handle clipping lists that are used to handle irregular shapes and graphic concepts like transparent bits and overlays.

Before we start to have a look at these objects in an actual program, you will need to go and get the DX Software Development Kit



This is your goal! Yes, exciting stuff, programming, but remember, even John Carmack had to start somewhere

(SDK). This can be downloaded from the Microsoft's web site at www.microsoft.com/directx/resources/devdl.htm. It's quite large so you can actually ask for a copy to be sent to you for a minimal cost. This provides lot's of good examples of what you can do with DX, and we actually take an in depth look at DDEX5 example now. You will need to have the SDK to be able to compile the programs.

PRACTICAL Let's Cook Donuts

Though a very simple application, this program uses many useful graphic manipulation techniques. I will try and explain each of these techniques now and then we will get our hands dirty by seeing them put to use in the actual code.

First go and run the ddex5.exe included on the CD so that you can get an idea of what I am talking about.

Off-Screen composition

The idea here is to build, or rather to render each screen in memory and then send it to the visible buffer as one image so the user can see it. This gives a much smoother display than if it was built piece by piece. In this example you would actually see the flying donuts "phase" in and out every now and again as the monitor refresh and the screen build get out of sync.

Scene Construction

Later on, you will see how each frame triggers reconstruction of the entire scene. Most times you will actually find it is a lot quicker to just rebuild the whole frame instead of running through some complicated logic to determine which portion of the scene must

be reconstructed. This is especially true when you have a single bitmap making up the entire background. The application does do one naughty thing and that is loading all the sprites as a single bitmap. This is really a bit of a waste of video memory.

Page Flipping

This is probably the most powerful feature of DD. Page flipping is the actual process of "flipping" between the front and back buffer. Since the memory pointer is actually changed and no memory is copied or moved it is actually very quick. The other good feature with flipping is that DD only allows the flip to occur when monitor vertical refresh occurs. This stops the "tearing" effect occurring which is where the top portion of the screen shows the previous frame and the bottom shows the new frame. Page flipping is just like when you draw a cartoon on the corner of your text book and flick the corner to make it look like it's moving.

Palette Animation

By modifying the DirectDrawPalette associated with the hardware we can change the colours the user sees each frame thereby giving a strobing colour effect. This is also a very handy effect to use when you want to change the colour of a portion of the screen without redrawing the whole screen. An example of this effect is when you move the mouse over a menu and you want the background of the button to change.

Donut's Code Dissected

OK enough of the theory, now it's time to get our hands dirty and have a look at each procedure in detail.

WinMain

The starting point for this program, we simply first call the doInit procedure. Then we start the main loop, which first checks if Windows has given us any messages such as telling us somebody has hit F12, if there is no messages we just update the frame then do it all again.

```
int PASCAL WinMain( HINSTANCE
hInstance, HINSTANCE hPrevInstance,
LPSTR lpCmdLine, int nCmdShow )

    if( !doInit( hInstance, nCmdShow ) )
return FALSE;
}

while( 1 )
{
```

```
    if( PeekMessage( &msg, NULL,
0, 0, PM_NOREMOVE ) )
    {
        if( !GetMessage( &msg, NULL,
0, 0 ) )
        {
            return msg.wParam;
        }
        TranslateMessage(&msg);
        DispatchMessage(&msg);
    }
    else if( bActive )
    {
        updateFrame();
    }
    else
    {
        // make sure we go to sleep if
we have nothing else to do
        WaitMessage();
    }
}
```

doInit

This is the most important part to understand well because this is where the DirectDraw object is created. Notice how we constantly check to see if each step has worked by checking the return value of each call via the `if(ddrval != DD_OK)` command.

```
static BOOL doInit( HINSTANCE
hInstance, int nCmdShow )
{
.
.
.
```

First thing we need to do is create a window, then display it to everybody and make sure it has focus.

```
hwnd = CreateWindowEx(
.
.
.
ShowWindow( hwnd, nCmdShow );
UpdateWindow( hwnd );
SetFocus( hwnd );
```

Now we are getting to the more interesting bits, we create the actual DirectDraw object and allocate the pointer `lpDD` to it.

```
ddrval = DirectDrawCreate( NULL,
&lpDD, NULL );
.
.
```

We must now determine the "CooperativeLevel" for the DirectDraw object. The cooperative level determines how much control we have over the screen. This must at least be either `DDSCL_EXCLUSIVE` or `DDSCL_NORMAL`. `DDSCL_EXCLUSIVE`

allows us to change video modes, and requires the `DDSCL_FULLSCREEN` flag, which will cause the window to take over the fullscreen. This is the preferred DirectDraw mode because it allows us to have control of the whole screen without regard for GDI. `DDSCL_NORMAL` is used to allow the DirectDraw app to run windowed.

```
ddrval = lpDD->SetCooperativeLevel(
hwnd, DDSCL_EXCLUSIVE |
DDSCL_FULLSCREEN );
.
.
```

Now we must say how big the screen is and how many bits per pixel we are going to have. 8 bits is for 256 colours, not the greatest but good enough for this example. It is important to realise that your screen is $640 \times 480 \times 8 = 307,800$ bits. This is how much memory you must get from the video card for each of the surfaces.

```
ddrval = lpDD->SetDisplayMode( 640,
480, 8 );
.
.
```

Since we now have a DirectDraw object we must create a primary surface with 1 back buffer attached to it. The flags we set are `DDSD_CAPS` which means that it has capabilities and `DDSD_BACKBUFFERCOUNT` means we will be having back buffers. The next step is to set the surface capabilities which is that it's a primary surface (`DDSCAPS_PRIMARYSURFACE`), we also want to flip our surfaces (`DDSCAPS_FLIP`) and its complex surface (`DDSCAPS_COMPLEX`). A complex surface just means that there is several surfaces attached to one object, usually chained. The back buffer is then attached to the primary surface.

```
ddsd.dwSize = sizeof( ddsd );
ddsd.dwFlags = DDSD_CAPS |
DDSD_BACKBUFFERCOUNT;
ddsd.ddsCaps.dwCaps =
DDSCAPS_PRIMARYSURFACE |
DDSCAPS_FLIP |
DDSCAPS_COMPLEX;
ddsd.dwBackBufferCount = 1;
ddrval = lpDD->CreateSurface(
&ddsd, &lpDDSPPrimary, NULL );
.
.
ddscaps.dwCaps = DDSCAPS_BACK-
BUFFER;
ddrval = lpDDSPPrimary-
>GetAttachedSurface(&ddscaps,
&lpDDBack);
```


The next step is allocate a palette for the DirectDraw Object. What we do is get the palette that is associated with the bitmap (szBitmap) that we are going to show on the primary surface since it has all the colours that we want and then attach it to the Primary Surface (lpDDSPPrimary).

```
lpDDPal = DDLoadPalette(lpDD,
szBitmap);
.
.
.
lpDDSPPrimary->SetPalette(lpDDPal);
```

All we need now in DirectDrawSurface is our work surface. We will do this by loading our bitmap to a new surface and since nobody should see it, it will be an offscreen surface. An offscreen surface does not have to be attached to anything.

```
lpDDSOne = DDLoadBitmap(lpDD,
szBitmap, 0, 0);
.
.
.
```

We now set the colour key to black for our work surface. A colour key is what the blitter considers to be transparent. All bitmaps are rectangular but if I have an object that is not square such as our donuts then the pixels on the edges are not needed so when we overlay this bitmap with our background we want the ones on the edges to become transparent so we can see the image behind to give the illusion that our bitmap is round. If this is not clear do not worry as I will be revisiting sprite animation in more detail at a later date.

```
DDSetColorKey(lpDDSOne,
RGB(0,0,0));
```

The next part is for our palette animation trick. If you have a look at our bitmap (fig 1) you will see that its made up of two halves. The top half is the background and the bottom looks like a series of pictures of a donut from lots of different angles. This is called a torus frame and our animation effect is done by showing each one of these views after the other to give the effect that it's moving. Anyway let's get back to the palette. What we want to do is mark each colour in our palette that is used in the bottom portion of the screen. Later on you will see why.

```
while (lpDDSOne->Lock(NULL, &ddsd,
```

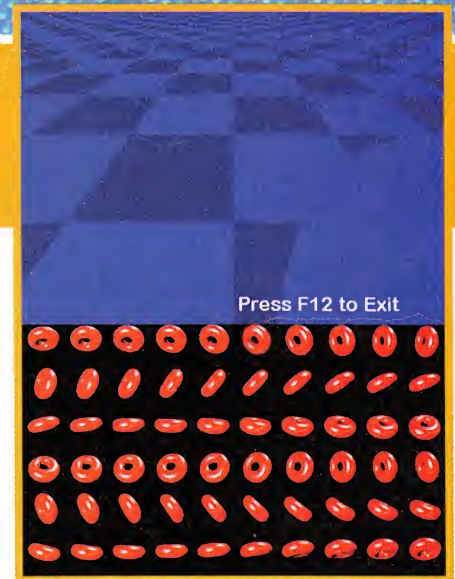
```
0, NULL) == DDERR_WASSTILLDRAW-
ING)
;
for( y=480; y<480+384; y++ )
{
for( x=0; x<640; x++ )
{
torusColors[((BYTE
*)ddsd.lpSurface)[y*ddsd.lPitch+x] =
1;
}
}
lpDDSOne->Unlock(NULL);
.
.
.
} /* dolnit */
```

updateFrame:

This is the "meat and potatoes" part of the application. The tickcount stores a count for each of the donuts, and when the count for a donut reaches the delay value for that donut then the frame is updated for the donut. Since each donut updates at a different time then the frame count (currentframe) must be kept as a separate value for each donut.

```
void updateFrame( void ){
.
.
static DWORD lastTickCount[4] =
{0,0,0,0};
static int currentFrame[3] =
{0,0,0};
DWORD thisTickCount;
.
DWORD delay[4] = {50, 78,
13, 93};
.
.
thisTickCount = GetTickCount();
for(i=0; i<3; i++)
{
if((thisTickCount -
lastTickCount[i]) > delay[i])
{
// Move to next frame;
lastTickCount[i] =
thisTickCount;
currentFrame[i]++;
if(currentFrame[i] > 59)
currentFrame[i] = 0;
}
}
.
.
.
```

This is where we build the next frame by blitting from the top portion of the work area



(from 0,0 to 640,480) to the backbuffer for preparation for the flip.

```
rcRect.left = 0;
rcRect.top = 0;
rcRect.right = 640;
rcRect.bottom = 480;
while( 1 )
{
ddrval = lpDDBack->BltFast( 0,
0, lpDDSOne,
&rcRect, DDBLFAST_NOCOL-
ORKEY );
.
.
.
```

There is always a chance that something has corrupted our video memory because another application in Windows might have updated the video memory. If this has happen then the BltFast returns an error code of DDERR_SURFACELOST. The other error code that is not a complete disaster is DDERR_WASSTILLDRAWING, as this error means that the surface you are trying to update is locked by another drawing process. This usually means that the previous Blit has not completed yet.

```
if( ddrval == DDERR_SUR-
FACELOST )
{
ddrval = restoreAll();
.
.
}
.
.
if( ddrval != DDERR_WASSTILL-
DRAWING )
.
.
.
```

So far, we have built the background for the current frame but we have not drawn the new donuts. The same process is followed by "cutting" a section of the animation bitmap and blitting it onto the back buffer. The same error messages are looked for as well.


```

for(i=0; i<3; i++)
{
    rcRect.left =
currentFrame[i]%10*64;
    rcRect.top =
currentFrame[i]/10*64 + 480;
    rcRect.right =
currentFrame[i]%10*64 + 64;
    rcRect.bottom =
currentFrame[i]/10*64 + 64 + 480;

    while( 1 )
    {
        ddrval = lpDDSSBack->BlitFast(
xpos[i], ypos[i], lpDDSSOne,
&rcRect,
DDBLTFAST_SRCOLORKEY );
    }
}

```

So now we have the background and the donuts drawn, the last thing we have to do is update the palette. This is simply done by moving through the 256 colour palette and then checking the array to see if the colour is used in the donuts. If it is then we adjust the palette and reload it to the DirectDraw object.

```

if( (thisTickCount - lastTickCount[3])
> delay[3] )
{
    // Change the palette
    if(lpDDPal->GetEntries( 0, 0,
256, pe ) != DD_OK)
    {
        return;
    }

    for(i=1; i<256; i++)
    {
        if(!torusColors[i])
        {
            continue;
        }
        pe[i].peRed = (pe[i].peRed+2)
% 256;
        pe[i].peGreen =
(pe[i].peGreen+1) % 256;
        pe[i].peBlue =
(pe[i].peBlue+3) % 256;
    }
    if(lpDDPal->SetEntries( 0, 0,
256, pe ) != DD_OK)
    {
        return;
    }
}

```

We have got the new frame ready for the real world so we have to move it from the back buffer to the front buffer. As mentioned before this is done via the Flip instruction, again we check to make sure we have not lost the surface or it is still not be drawn.

```

ddrval = lpDDSPPrimary->Flip(
NULL, 0 );

```

WindowProc

This procedure is a standard Windows call that is looking for a message from Windows. The SETCURSOR is to hide the mouse pointer and the KEYDOWN is waiting for an escape key or the F12 key so it can shut everything down.

```

long FAR PASCAL WindowProc( HWND
hWnd, UINT message,
WPARAM wParam,
LPARAM lParam )
{
    switch( message )
    {
        case WM_SETCURSOR:
            SetCursor(NULL);
            return TRUE;

        case WM_KEYDOWN:
            switch( wParam )
            {
                case VK_ESCAPE:
                case VK_F12:
                    PostMessage(hWnd,
WM_CLOSE, 0, 0);
                    break;
            }
            break;
    }
}

```

restoreAll

As mentioned before, this is restore the corrupted surfaces.

finiObjects

This procedure just deletes and like every good program it hands back any memory that it used while executing.

initFail

This simply puts a message to the screen explaining things didn't quite work out as planned and then executes the finiObjects procedure to cleanup.

Well that about explains how the Directdraw works. The source code is included on the CD but do not forget you will need the SDK to compile it (from: www.microsoft.com/directx/resources/devdl.htm). Next month I will talk about some tricks to make your directx routines fly.

James McCutcheon is a 29 year old professional developer who has been working in the computer industry with several multinational companies over the last 10 years since completing a computer science degree. Also being a dedicated game player James has seen his own development company, ZetaTech Systems, branch out to game design with several games on multiple gaming platforms over the last 4 years.

Setting up DirectDraw for you to use in Visual C++

Step1

Setting up Visual C++

- 1) Ok, let's begin by starting up Visual C++.
- 2) I assume you have the SDK installed somewhere already, preferably c:\dxsdk. Now click on menu (TOOLS->OPTIONS).
- 3) Click on the Directories Tab.
- 4) Having done that, now click on the blank dotted box.
- 5) Change "SHOW DIRECTORIES FOR" to "Include files."
- 6) Click on the dotted box and type in the directory C:\dxsdk\include, or C:\dxsdk\inc depending on the version of the SDK.
- 7) Move the directory you just typed in to the top of all the other directories.
- 8) Change "SHOW DIRECTORIES FOR" to "Library files."
- 9) Click on the dotted box type in the directory C:\dxsdk\lib
- 10) Move the directory you just typed in to the top of all the other directories.

Step2

Compiling a DirectX program.

- 1) Now in your project, Click on Menu (Project->Setting).
- 2) Click on Tab "Link".
- 3) Now, in the box labeled "Object/Library module", at the end of the line, type in ddraw.lib and dxguid.lib.
- 4) Now exit it, and make sure all your source files have the necessary directdraw header (ddraw.h). You'll get a compile error if you don't.

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FENG SHUI FOR YOUR COMPUTER ROOM

Maximising your gaming goodness has always been a part of the Powerplay Bushido. Now we bring you the harnessed secrets of the Oriental art of room arrangement to help generate a balanced, sacred gaming space.

Feng Shui has been used for many years to help people feel at ease in their surroundings. One place you should definitely feel comfortable is at your computer desk, where you will probably spend a good slice of your spare time. We've taken on the ancient art and boiled it down to the relevant spicy stuff you can use to specifically arrange a recreational computer room.

Feng Shui finds its foundations in common sense, but also uses theories of a mystical energy force: Qi (or "Chi") which flows through your house, channelling through doors and windows, and bouncing off mirrors. Correctly balancing the Yin and Yang Qi in your house supposedly brings prosperity and longevity but most importantly harmony, peace of mind and comfort - which is what we're after.

Yang gaming area

A gaming area is one of Yang (activity, noise, warmth). When it's situated inside your bedroom, as is often the case, it's considered necessary to create a barrier between the Yang of your gaming and the Yin of your sleeping. This logical barrier is essentially a visual concern, so fabric screens would do, but things like bookcases, wardrobes or sheets stapled to the roof can all do the trick. The idea is that when in one zone, you can't easily see into the other.

If you must have your monitor where you can see it as you sleep, it's best to hang a cloth (or unwashed shirt) over it at night to prevent it reflecting moonlight or streetlights into the room, and also from acting as a mirror.

Lighting

Lighting is also a consideration, as a harsh overhead light can be oppressive (and make bright reflections off the monitor), so combine table lamps or lamps diffused against a

wall or roof to create soft pools of light and a relaxed atmosphere. During the day you can achieve similar effects with translucent curtains or venetian blinds to carefully control the light level inside.

Orientation

A computer room (or office) is a room with Yang characteristics, and in the southern hemisphere these should face North or North-East. However, if you store your computer in a bedroom, your comfort while sleeping should take precedence, as good health is one of the cornerstones of Feng Shui philosophy. In this case you would take a South or South-Westerly orientation, to achieve a cooler temperature.

Shapes and Size

Now, considering your platform for all things gaming is utterly centralised at your computer desk, its Feng Shui qualities are of paramount importance to our setup.

When playing games your desk at least needs to store all your equipment and let you sit comfortably with your arms on it for long periods of time. If you use your computer desk for work (yeah, right!) then squares and rectangles are good for making money, while oval, round or curved ones are better for creative type work.

Those with massive monitors definitely need a wider desk to accommodate them, these people should also strongly consider facing into the room, as that way the monitor

can overhang nicely, while you reclaim desk space, enhancing visual freedom, comfort, positive energy, and hence Feng Shui.

Placement

The ideal place for a desk within a room is in the opposite corner to the door, parallel to the wall, preferably with a solid wall behind.

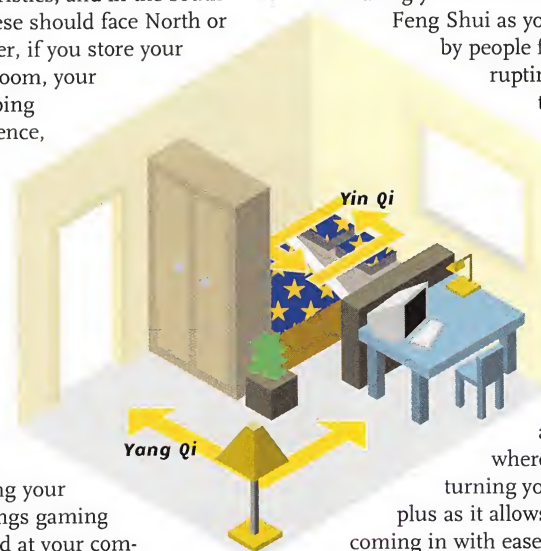
Having your face to the wall is not ideal Feng Shui as you may be surprised by people from behind, disrupting your concentration (and stuffing up your high score). By condensing your focus into a narrow claustrophobic space and turning your back to open space you invite interruptions. Being

able to see the door where you sit, without turning your body is a big plus as it allows you to see people coming in with ease. At the same time, having the desk directly facing the door may make visitors feel uncomfortable. If you are trying to defend your privacy, though, this might be exactly what you want!

Following these guidelines, and above all following your intuition, you should be able to make your games room a place where you feel comfortable sitting down, a sacred space of Yang Qi.

where you sit, without turning your body is a big plus as it allows you to see people coming in with ease. At the same time, having the desk directly facing the door may make visitors feel uncomfortable. If you are trying to defend your privacy, though, this might be exactly what you want!

Hendry Saunders



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STATE OF PLAY

What's happening
with all the
cool stuff

Adventure/RPG

David Wildgoose

Wish I could tell you something new and exciting about the twin worlds of adventure and role-playing games this month, but it's just not possible. I'm afraid that I've been otherwise occupied with a little thing called *Thief*. There's an ecstatic review elsewhere in the mag, but I thought I'd mention it here as well. Why here? Basically, if you've ever enjoyed a Looking Glass game, you simply must get hold of *Thief*. Yes, it's ostensibly an action game, but in the sense that it's also an "anti-action" game and will appeal to adventure and RPG players equally. Go on, make LG rich!

Okay, I tell a lie, I have spotted a few other interesting developments relevant to this column. There's the *Fallout 2* patch



(<http://www.interplay.com/fallout2>). Well, it's a beta patch at the time of writing, but Black Isle promise that any game saved with it will work with future patches. It fixes a whole host of problems - and there were plenty to fix - including those slow load times and various quests that couldn't be completed properly. A great game is now almost fully playable - yay! And speaking of all things post-apocalyptic, Tim Cain, *Fallout* designer, has set up a team called Troika Games and begun development on a new RPG to be released by Sierra sometime during 2000.

Due sometime late in '99 are two startlingly different games from Cavedog, the makers of *Total Annihilation*. *Amen: The Awakening* is one of these new action/adventures that are part first-person shooter and part role-playing adventure. Yeah, your character may have a great big gun, but his skills and your brains are there to be exercised as well. Should be a good rival for *Deus Ex* and *System Shock 2*. *Elysium* is a massive, third-person RPG that lets you explore a dreamworld inhabited by the great minds of history. Sprawled across 40 episodes, each new story will be released at regular intervals over several years. A curious approach, that's for sure.

Oh, and *Ultima Ascension* has been delayed until the 2nd quarter this year, slipping from its earlier announced March release. But is anyone surprised? Next month...

Action

George Argy

Current Game Versions:

Quake2: 3.20 (id have stated this is final)

Unreal: 2.19

Sin: 1.01 (if you can a 19MB file a 'patch')

Firstly, a bit of a rant. Ritual, how the hell can you screw up a game that is based on the best engine to date? How can you release a game as buggy as *Sin* to make it to market before another game? Even if *Sin's* code was clean, it was never half the game of your 'competitor' (pun intended).

Radioactive software, besides being hard at work on their first original game *Conflict*, have announced they are developing a *Half Life* expansion pack tentatively named *Half Life: Level 5*. In the add-on you are Sara



Wilson, a British toxin expert working with the US army. Level five is set in roughly the same time as *Half Life*, so it may present a different take on the events that occurred at Black Mesa, with new weapons and enemies thrown in for the ride.

The Big M (Microsoft, not McDonalds) have decided to enter the 3D shooter genre with *Loose Cannon*, an action-adventure game set in a future US overrun with crime. You take the role of Ashe, a bounty hunter after the head of Bishop, the leader of a powerful crime syndicate. Apparently you can choose in the beginning of each mission how you wish to tackle it, whether it be by foot or in any one of 15 customisable vehicles. You know deep in your hearts it's a good thing to be anti-M, but if they can produce a 3D game as good as their forays into other genres, this may just be the game to look out for in '99.

Rage, the outfit responsible for the eye-pleasing-yet-awful *Incoming* are hard at work on *Expendable*, a 3D shooter featuring you as a space marine fighting aliens on alien worlds. From the screenshots we've seen, the game has the same visuals as *Incoming*, but the gameplay looks like a 3D version of an classic arcade shooter like *Ikari Warriors* or *Midnight Resistance* as you and another player fight the baddies on one screen (doth a tear appear in the eye of older arcade freaks out there?). Expect big weapons, big enemies and big destruction, methinks.

Strategy

Brett Robinson

Current Game Versions:

Total Annihilation: 3.1

Dark Reign: 1.4

Starcraft: 1.03

Age of Empires: 1.0b

Notorious for its unofficial (and strenuously denied) development strategy of "emulate those who innovate", Microsoft has secured a seat on the space-based RTS game bandwagon. With visuals that can only be described as a curious comic book/Wing Commander hybrid, **Conquest: Frontier Wars** is conceptually similar to **Homeworld**. While many of the unit designs have yet to be finalised, a plethora of units including battle-ships, minelayers and carriers loaded with agile fighters will be at the player's disposal.



Black & White

Conquest: Frontier Wars is definitely one to watch as it nears completion.

Fans of **Close Combat** and it's sequel will soon have reason to celebrate with the series due to become a trilogy. **Close Combat 3: The Russian front** is currently being developed by Atomic Games and looks set to transcend its progenitors in both the gameplay and popularity stakes. On offer will be sixty soldier types, eighty vehicle types and three hundred team types. Atomic has received thousands of suggestions from gamers and they'll attempt to implement as many as possible.

Sure to have gamers everywhere salivating in anticipation is **Black and White** from Lionhead Studios. The creative genius behind the ambitious project is Peter Molyneux; co-founder of Bullfrog and the brains behind phenomenally successful titles like **Populous**, **Magic Carpet**, **Syndicate** and **Dungeon Keeper**. **Black and White**'s resemblance to **Populous** is, for the most part, superficial. Intrinsicly, it will be a world-building title; requiring the subjugation and assimilation of rival civilisations in order to achieve global domination. Interestingly, the way players treat their minions will directly affect the appearance of the land surrounding cities, and determine the styles of magic available to them. **Black and White** will also introduce an aspect never before seen in a strategy title. The player will be able to raise colossal Titans from indigenous creatures that will range from lambs to lions. Titans will roam the land; keeping citizens in line and fighting opposing titans that dare encroach on the player's territory.

Sims

Maj. Ian Lindgren

Well I'm pleased to see that some firm information is beginning to trickle out of the UK and US game developers now that the Christmas rush is over.

In December I advised you that the submarine sim **Silent Hunter 2** would be released mid year; that has now been confirmed as September 1999 so I'm afraid we will have to wait a little longer. Longer still is **Harpoon 4**! SSI advise that they are developing the game through a new design house, Ultimatum, and the release date has been pushed back to 2000. Sounds like the **Falcon 4.0** of sub sims to me!

Good news from Red Storm Entertainment is that their first real time combat sim, **Force 21**, will be released in July 1999. The game is



Force 21

based around the story that China is pursuing an expansionist policy to secure oil supplies in the year 2012. Their invasion of the massive Russian Stanovoy oil fields really gets things going, with Russia gaining assistance from a coalition Army including US forces! All told, more than 50 types of advanced vehicles and weapons systems will be modelled. The unit types will encompass helicopters, engineers, reconnaissance, air defence, logistics, tanks, armoured personnel carriers, close air support aircraft, and even unmanned aerial vehicles. What's more, players will even have to employ various types of electronic warfare units to jam the enemy's communications and, if possible, deceive them regarding their ultimate intentions. Look out for this one, it's designed by a former US National Training Centre Officer! Other good news from RSE is that a **Rainbow 6** sequel will be on the streets mid year.

At last we seem to have a serious A-10 sim on the way with Jane's confirming that their famed "Skunkworks" Team, led by Andy Hollis, is planning a 3rd quarter release. No more details at the moment, but if it's a Jane's Skunkworks' product, it'll probably be very good.

SSI is extending **SU 27 Flanker 2** with the release of a Mission Disk in May 1999. They also advise that work has started on an **SU 25 Frogfoot ground attack simulator** with a release date of November 1999. This could well be competition for the Jane's A-10 sim!

Finally, **Total Air War** pilots should check out www.did.com for the TAW patch that fixes the few bugs found in the game.

Sports

Gareth Jones

Ah, you gotta love sports sims. All the fun and beauty of your chosen sport without all that horrible fitness, strength, physical exertion, and practice required. All you need to be world champion is dextrous fingers holding a gamepad. Joy!

So what's new with sports sims then? Well, plenty. Let's start with EA, the kings of sport sims. After recently acquiring (or renewing) the licenses for **AFL**, **Cricket**, and **Rugby Union** (under their 'World Sports' label), it seems that the designers and programmers have gone straight to work. **AFL 99** has already shipped (and it's bloody good too - review next issue), and Ricky Ponting (love him or hate him) has been brought in for the local version of **Cricket World Cup 99**,



Grand Prix Legends

due out sometime soon. The Rickster will be on the cover sporting the flash new Australian strip for this year's World Cup. Still more EA news; **Rugby World Cup 99** is in development as well, and though there aren't many details available as yet, you will be taking control of all the real players from all the RuggedBugger playing nations - and about time too! If you're even more pugilistically inclined than the average Rugby fan, then you should be pleased to note that EA's "**Knockout Kings**" boxing sim is on its way, and by the time you read this it should finally be out in stores, so I'm told.

It's not just EA's world though, plenty of other developers are making decent sports sims, but sadly this doesn't include Head Games. They had a great idea for a game - a paintball sim called **Extreme PaintBrawl** - but the execution is just sooooo laughably bad - just stay away from this one. One game you don't want to stay away from though, is **Grand Prix Legends**. Not only is it great to play single player, but online racing is even better. If you're a GPL fan and you haven't heard of **VROC (Virtual Racers Online Connection)** yet, then it's high time you got yourself to gpl.gamstats.com/vroc. It's a fully featured (free) game matching service for GPL, and while you're online you could always check out the wonderful Eagle Woman's site at www.nh.ultranet.com/~alison/gpl/ for everything else you'll ever need to know about this magnificent game.

QUAKE III ARENA

What's next in line for the world's biggest and best gaming dynasty? By George Argy

It is arguably the most eagerly anticipated game of all time. It has the potential to elevate id software to the lofty heights of revolutionary gaming they enjoyed with Wolfenstein and Quake - or to prove once and for all that id were at their peak with Doom. It is Quake III: Arena, and unless you've been living in the same lead box that you put yourself in during the eighties to avoid glam rock and Duran Duran, it is the 3D gaming world's hottest news. But what exactly is Quake III: Arena? Is it a sequel to Quake II, or is it something completely different? Why are we going to be blown away (or not, as the case may be) and what the hell ever happened to Trinity, anyway? Hopefully, all this and more shall be answered in these few pages. Read on...

First, a little history...

After Quake 2, half of id were at work on a Quake 2 mission pack, while the other half were toiling on Trinity. Trinity was supposed to be the FPS to end all FPS's, with a completely new engine taking advantage of next generation hardware, etc. However, there was a growing disquiet in the id camp. The mission pack had enough new features to warrant a completely new game release and it borrowed heavily from the feature set planned for the Trinity engine. This situation could only result in

both projects being delayed, as well as an obvious mis-allocation of resources. To top it all off, games like Unreal (which had been released by now) and Half-Life (which had not), were boasting a feature set that would make an ordinary sequel from id garner a 'here we go again' response. Something had to be done; something completely different. Thus, instead of Quake 3, Quake 3: Arena was born. The difference being this game would have no single-player element to speak of - no plot, no subtext, hell, no real point to playing it by yourself. This was going to be a multiplayer only game.

Multiplayer only?

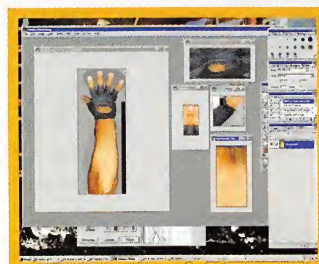
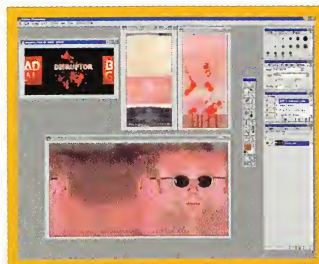
Sounds risky doesn't it? Basing a whole game on multiplayer only? But look at it this way - ever played a fighting game like Street Fighter, Mortal Kombat or Tekken? You fight an enemy, usually best out of three, and then progress to the next enemy and so on until you conquer the boss(es). When you get tired of playing the PC enemies, you beat up your friends for a good time.

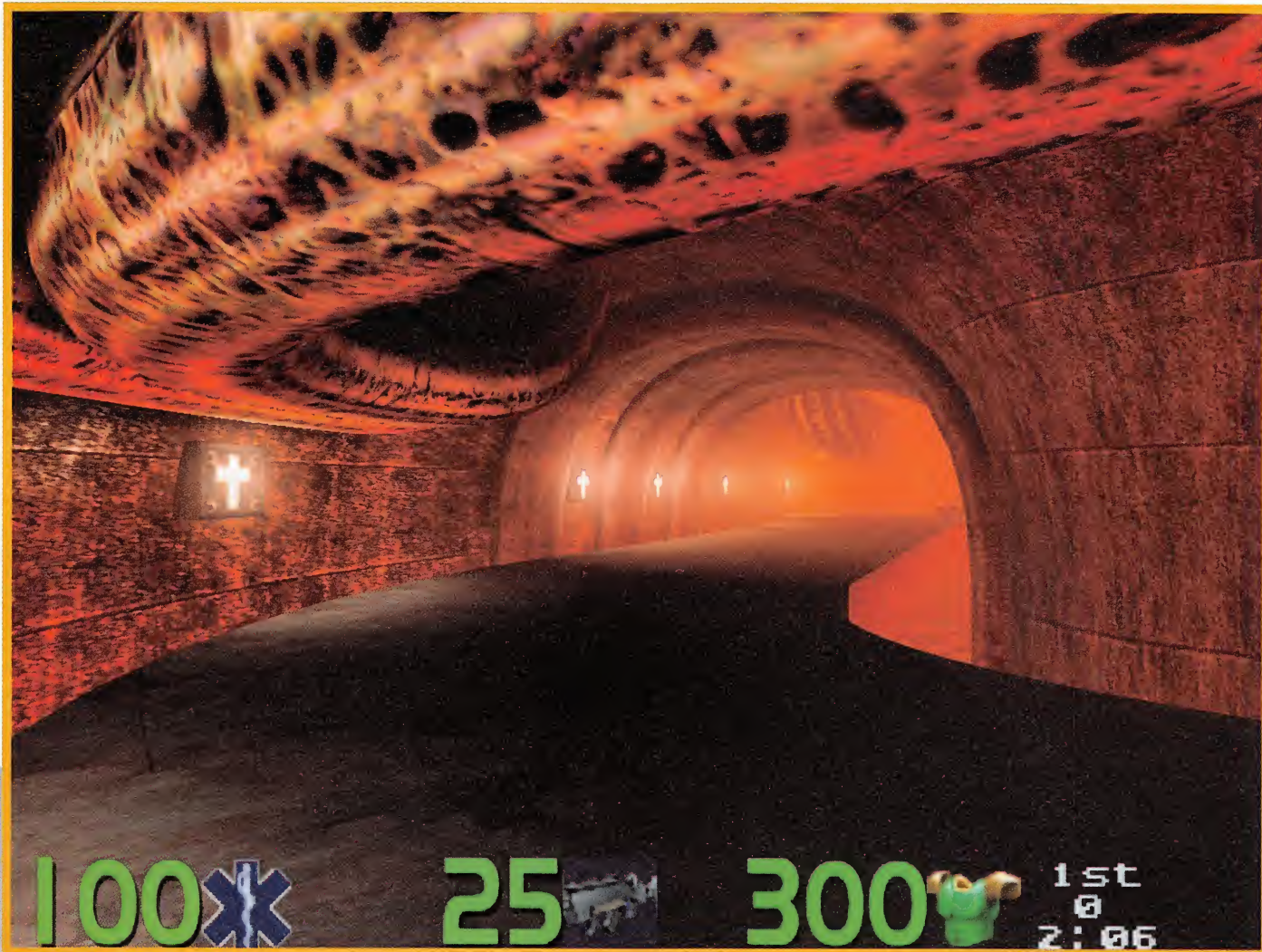
Quake III is based on the same premise. The single player game will essentially see you fighting against a foe or foes on a deathmatch level. When you defeat them, you move on to take on more difficult opponents. The opponents you face will have progressively better AI



and better weapons, so the emphasis of the single player game will be on improving your deathmatch skills rather than

No plot, no half-arsed storyline, just pretty graphics, great animation, and plenty of good old fraggin' fun (below) Some of Paul Steed's early handiwork - co-worker models

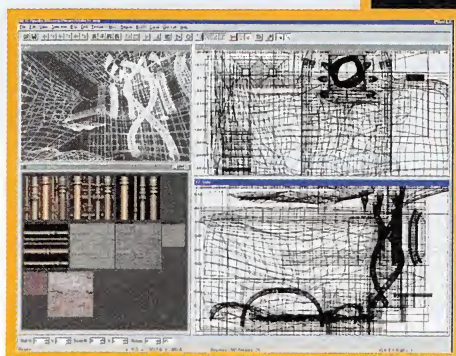




Curved surfaces. It might not sound like much, but it ups the possibilities by a hell of a lot

progressing through a level or achieving a mission goal - heaven forbid there be a challenge as cerebral as that.

Now you may shudder when you read this and think to yourself 'didn't X-Wing vs. Tie-Fighter try exactly the same thing and fail?' Yes and no. True, XvT's missions were really training grounds for multiplayer (although they pretended not to be), but the network code was poor, resulting in unplayability over anything but a LAN. Q3A will have the advantage of id's wealth of experience with network code, hopefully ensuring that the game will be playable over at least a decent



28.8k modem connection. Oh, and how many players exactly? This is up in the air at the moment, but the rumour is that

we're looking at about 64. This is not such a big deal as it seems - most people can count on a mutilated hand the number of times they've been on a Quake server with more than 32 players.

It's got mods!

Also a new inclusion to the id stable of 3D games is the concept of character classes. So far, classes have made an appearance only in 3rd party mods like Team Fortress

id have made a conscious decision to go back to the good old days of Doom death-match. Our guess this pic shows the return of the plasma gun



as well as games licensing the Quake/Quake2 engine like Hexen. While John Carmack was initially opposed to the idea of classes in Quake III, after being leaned on enough by his colleagues he finally saw the light and we, the gaming public, will finally see character classes out of the box by id. These won't just be different character models and skins, but then again they may not be bona fide distinct classes like in Team Fortress. The details that have been released so far from the id camp describe three classes - heavy, medium and light. The differentiators thus far will be the character's maximum allowable hit points, armour and speed. This should make for some interesting gameplay variants and approaches to the tactical aspect of the game. For example, one of the powerups detailed so far is Haste, which will enable a player to, erm, move much faster. Coupled with the light character class, we'll see Doom-marine type speeds.

The only multiplayer variant confirmed is the seminal

Capture The Flag (CTF), which will most likely be included in the initial distribution. There is no word on other multiplayer variants. Q3 will include some features that have only been made available in 3rd party mods thus far, but make such a difference to the gameplay that it's a wonder that id haven't implemented these features in any of their games to date. You'll be able to tell who you're pointing the business end of your weapon at because their name will appear in your targeting reticle (or crosshair). Your frags will also be displayed in the middle of your screen every time you score a kill, with server-side messages still in the top left of the screen so you only need to concentrate on important information. In a nice touch that is sure to spark more debate on death-match ethics on the net (I pity the ISP's who will have to carry the whole alt.games.quake3 group), an icon will appear over your head when you are in talk mode to alert other players that

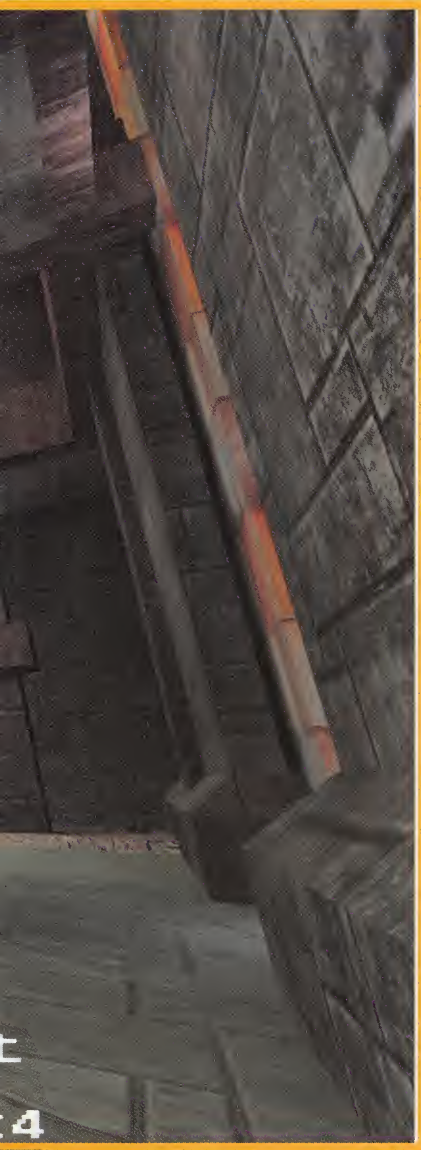
you are prone. They'll probably still shoot you, of course, but at least it puts an end to the 'But I was typing' excuse when somebody gets gunned down.

Let them eat Quake!

Believe it or not, id software are actually positioning Q3A as the type of game that will appeal not only to the hard-core death-matcher, but also to new players

keen to try out this online gaming thing. Many features will appeal to first-time Quakers and allow them to be slowly introduced to the fine art of destroying someone with a rocket launcher. Features like 'keyboard only' levels where the level is mostly flat so you don't need to use the mouse will enable the less co-ordinated amongst us to enjoy a frag or three without



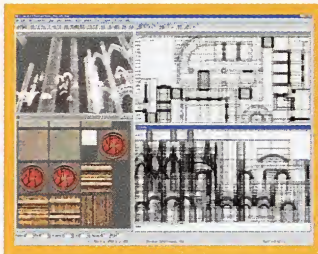


using the mouse. Many more in-game options will be available from the menus rather than just the command line to accommodate gamers uncomfortable with jumping to Quake-DOS. Id have also described a 3-button networking feature, where new players can be online and fragging within 3 presses of the enter key, rather than 3 hours of tweaking an autoexec.cfg file.

This is not to say they are alienating their existing fan base by selling out, man. For one, the satanic references are back, with inverted crosses and goat-heads a plenty a'la Doom. Similarly, the gore factor makes a re-appearance with detachable body parts and bucketloads of blood, instead of the red smears we are subjected to in Quake2.

Graphics, graphics and more graphics

The graphic effects that have been revealed in Q3A are nothing short of amazing. In a first for any 3D shooter, Q3A will introduce curved surfaces, mak-



ing for some of the most realistic levels you'll ever see. Levels that are made to appear organic will finally be able to achieve this effect without being a blocky imitation, and any outdoor levels that are created will finally have trees and such that don't look like they're made of Lego. Similarly, the use of mirrors and reflective surfaces will allow more realistic levels and some cool effects like mirrored sunglasses for when you design that crack dealer skin you always wanted to. Other features that have been confirmed are dynamic shadows which will obey the properties of light, volumetric fog similar to Unreal and large 24-bit colour textures resulting in sharper, more realistic objects and architecture. One particularly cool-sounding feature is the use of displacement maps, which add detail to objects the closer you get to them. This means that the game should run smoother even with the higher texture resolutions as the textures won't be drawn at full resolution when you are standing many metres away from them. Get close enough however, and you should be able to make out the grout between dirty tiles.

Weapons and other fun stuff

The weapons to be implemented in Q3A are yet to be confirmed, but there are some weapons in the current version that id have demonstrated. Apart from your 'stock' weapons like the pistol, machine gun, grenade launcher and rocket launcher variants, there will be a rail gun that functions identically to the one in Q2. A melee weapon is

also looking a lot more likely which should satisfy those who crave the up close and personal style of deathmatching. Making a comeback from Quake is the trusty lightning gun, and hailing all the way back to Doom is the Plasma rifle, sure to look awesome with 3D lighting effects. John Carmack has also addressed the issue of slow weapon switching, so that although weapons won't switch instantly as they do in Quake, it will only take 6 frames of animation to switch weapons as opposed to Quake 2's 13 frames. You will also be able to tell when a person is switching weapons and discern what weapon they are using at quite a distance.

Some items that have been confirmed are invisibility, which behaves much like Doom's invisibility as well as a jetpack and a berserker powerup which functions exactly like Doom's. You could be forgiven for thinking that Q3A is sounding very much like a polished and updated Doom. Carmack and most of the guys at id are unashamed about discussing their desire to bring back some of the 'classic' elements in Doom (even going so far as discussing the possibility of a Doom 2000), and the rumour is that id will probably include models from Doom and Wolfenstein in Q3A as opponents in the single player game.

Conclusion

Will the id gamble pay off? As much as we all love to play Quake online, single player Quake sucked. If id concentrate solely on the game engine, graphics, gameplay and network code and forget about modelling enemies, making levels, plot, storyline etc, could it just be the best multiplayer game ever? In this writer's humble opinion, only two major obstacles stand in their way:

1) Q3 will need to be playable on lower-end systems. I know, I know, many of you are saying hey, if you're a hardcore gamer,

you need to have a PII 450 with a Voodoo2 card and an ISDN line by now. The fact remains though that Joe and Betty Public have a Pentium 200 with a 33.6k modem and would be lucky to own a 3D card. I've always been an advocate of moving with the gaming times, but id are already alienating enough people by making this game multiplayer only. If they make beefy system requirements a prerequisite for smooth gaming, watch the numbers fall away. At the time of writing, Brian Hook has stated that the system requirements for Q3A would be a P200 MMX, 32 MB RAM and at least a first-generation 3D card (ie, Voodoo or equivalent). If Q3A introduces scalability from the lowest system to the highest as is promised, this should appease most gamers and allow a far wider cross-section of the community to enjoy the game.

2) The network code will need to be as robust, smooth and configurable as all hell. Id need to accept the fact that although Q2 plays well over the net, Q1 was miles ahead in terms of performance. If Q3 is not at least as fast over a modem connection as Q2 is, it doesn't matter how pretty it will look because no-one will play a game by themselves for long if it was designed to be played with others.

Just in case you were curious as to when this fine title will be made available, as with most games from id there has been no confirmed release date but given the advanced state of development of the game, a mid to late 1999 release is likely. Quake 3 Arena will be published by Activision.

Online resources

Id software - <http://www.idsoftware.com> - where it all started

Q3 Arena Net - <http://www.q3arena.net> - good source of news that is updated frequently

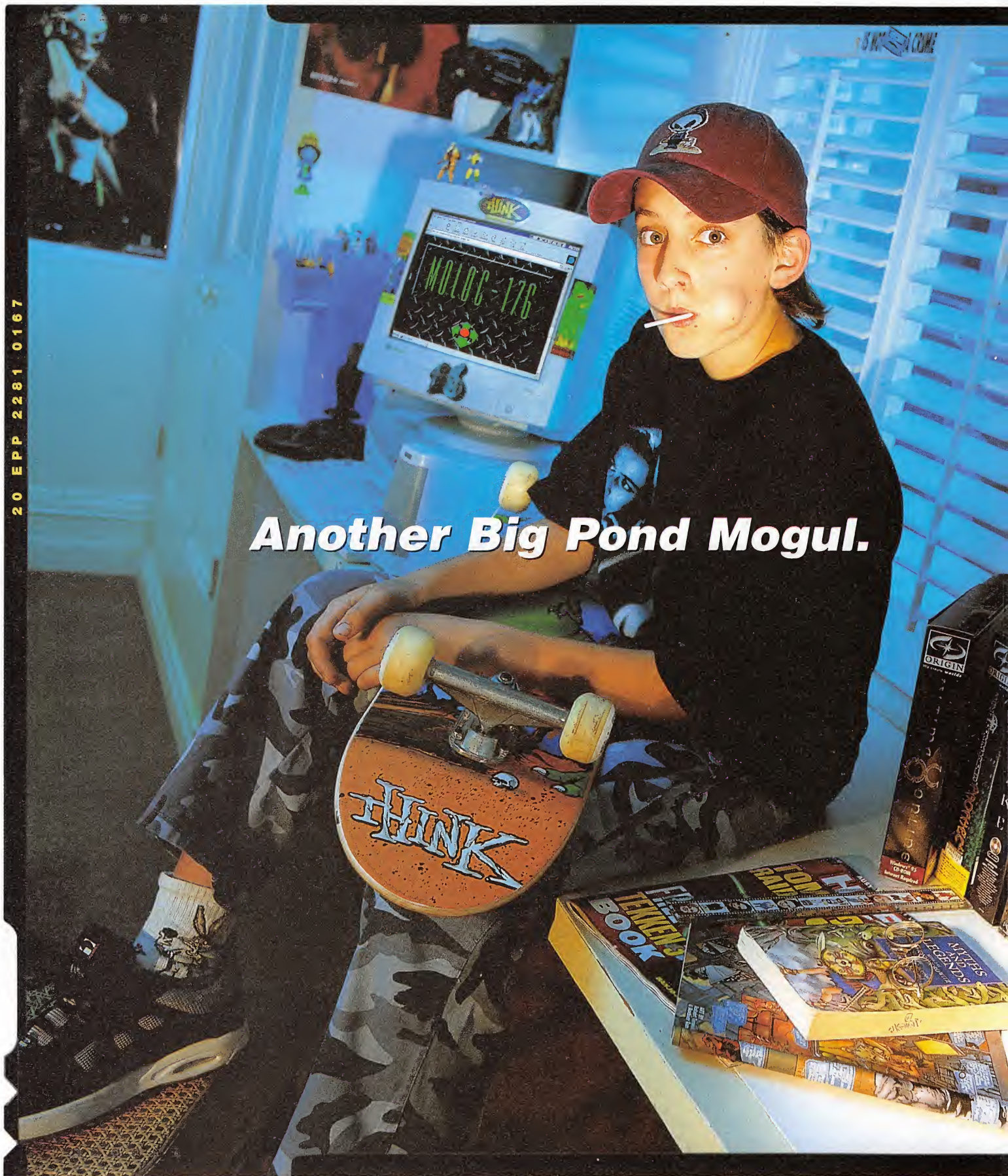
Quake 3 Rocks - <http://www.quake3rocks.com> - another good news site

Quake 3 Nation - <http://www.quake3nation.com> - yet another news site

Trinity: The Site - <http://www.planetquake.com/trinity> - good site for Trinity/Q3A news - check out the bump-mapping demo.

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Another Big Pond Mogul.





"It's all been a bit of a spin out. One day I'm just a kid mucking around on my computer, the next, I'm some sort of a legend because I've created my own Sci-Fi game on the net.

In the beginning Dad was a bit freaked, I don't know why, he was always asking me what planet I was on. Now at least I can say Moloc 17G, my role playing home base.

The weirdest thing is that I used to reckon school was a total waste of time, but amazingly, I actually learnt how to do all this stuff in basic programming class.

“The best thing about being sent to my room is the marketing potential.”

We were already connected to Telstra *Big Pond*[®] at home so setting up my site was a snack. They're pretty mega which makes it easy for people from all over the world to find me and log into my game. The more the better, especially since a tech-head friend of mine showed me how to make some dough by charging players to download the software. How cool is that?

I don't know exactly how much I get, my old man puts my cheques in the bank and gives me some dodgy pocket money. He says the rest is being put away for my future. But as far as I'm concerned, I'm already there."

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NATIONS: Fighter Command



Psygnosis have ignored the Xmas deadline and instead just want to make the best WWII sim ever.

Category Flight sim
Players 1-multi
Publisher Psygnosis
Available April/May '99

I don't know about you, but in my opinion, you just can't beat a close up guns kill in a modern WWII combat sim, where the cannons and guns are ripping away, your hand's shuddering under the impact of a force feedback joystick, and the roar of the engine is deafening through your speakers! However, sadly it appears that we are nearing the end of the known WWII flight simulation developments with the upcoming release of Nations: Fighter Command. Without a doubt Nations has some heady competition before it with EAW, Microsoft Combat Flight Simulator, Fighter Squadron, and WWII Fighters! As you know, I have flown them all, and this sim might just be the one that takes us a step or so further down the track of bleeding edge gaming entertainment by the time

it's released in March or April. Let's hope that Nations: Fighter Command delivers what it appears to promise.

In this beta copy, Psygnosis have taken up the challenge, and appear to be developing a quality sim. To gain the market edge they are concentrating on gamer participation in historical missions, mind-blowing realistic graphics, and painstaking efforts to simulate the effects on the aircraft's flight model and physical characteristics as it progresses through all stages of its virtual environment.

The full war

My initial impressions can be summed up with the word



With solid & proportionally correct design, this virtual cockpit is a winner

"atmosphere". Vintage WWII footage that I've not seen before introduces each mission. Again, you fly for either German, English or the US in 45 historical missions that take you on a chronologically accurate tour of each country's involvement in some of the air battles of WWII. This means that you won't be able to affect the outcome of the overall war, but you will be able to fly the missions that were actually flown. There are 15 missions per nation, 10 instant action missions and 3 separate multiplayer

missions. A mission generator is planned to be released after the game, at no cost, by download over the internet. This will add to the game's overall worth, but I must question the strategy. Psygnosis is the last to release a WWII sim, so in my opinion, they may as well release the full game; it's not as if there's a rush!

Graphically, Psygnosis are out to capture your heart and soul, whether you are in the cockpit or





Psygnosis' bleeding edge development, and that is the blending of the flight and damage models with the virtual environment.

Damage model

It was not yet incorporated into the beta, but Psygnosis advise that the aforementioned turbulent weather conditions will buffet the aircraft as you fly, side to side, and up and down with wind shear effects. So, hiding in clouds might not be all that great, and it may even damage your aircraft in thunderheads! This element of gameplay might be another key to success for Psygnosis who plan to link the game's physics engine to the flight model and virtual flying conditions. For this to work, the physics engine, flight model and virtual environment need to interact with one another constantly. To the gamer, this means that each flight model, for each aircraft, will perform exactly as it would in its virtual environment. When the aircraft is damaged after cannon, gun, and AAA hits and so on, its physical shape will change with skin deformations, tattered wing and tail remnants and so on. These incidents would in real life re-direct the airflow, making the aircraft respond differently. So there could be some exciting developments with this game, and personally, I hope it works.

There are some unique features being developed in Nations: Fighter Command that have the potential to again advance gaming entertainment. I think the game will appeal to all flight simmers, but will require some significant CPU grunt to draw out its full potential. A mission planner is a must for the final release in order to ship a complete product, and I'm sure we'll see a winner in Nations: Fighter Command early next year.

Maj Ian Lindgren



Plenty of Maritime actions in Nations

out viewing with one of the cameras; the aircraft, their cockpits, the air and ground environments and the shades, shadows, and reflections are almost romantic! The flyable aircraft by country are the FW-190, Me-163 and the Me-262, Spitfire, Typhoon, Hurricane, P-51, P-38, and P-47, and numerous AI controlled aircraft will also fill the sky. These are all accurately reproduced and complemented by shipping that is yet to be fully developed, but is beginning to show wakes, AAA fire and AI of its own. Terrain does not miss out; it is being developed from 1940s European maps and clearly shows buildings, rivers, roads and sizeable cities. Psygnosis is even suggesting that it will model people on the ground where appropriate; they may scatter when you dive low or when an aircraft falls out

of the sky in city areas! Does this sound interesting?

Turbulence

The clouds are volumetrically rendered, which means that you

can fly through them and around them in a realistic manner. The Instant Action feature allows you to change the time of day for each mission and in the screen shots you can see the depth of colour that has been developed to support this function. Storm conditions also bring on unbelievable lightning effects that light up the sky and bring on turbulent flying conditions. This brings us to the third element of what I see as





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INTERSTATE '82

The 80's: excess, greed, Reagonomics, thin ties - and, of course, muscle cars loaded with guided missiles. Ahhh, memories

Category Action
Players 1-8
Publisher Activision
Available Early '99

A curse for some while a blessing to others, Interstate '76 was a tongue in cheek action spoof of the seventies featuring afros, plenty of gold chains, and that "too kool for skool" attitude. The sequel, Interstate '82, is a kitsch take on the long gone 80's. While people may have the mindset that, again, this will be a curse for some and a blessing to others, Activision are hoping that gamers will notice the many and subtle differences in I'82 rather than the flavour in which these are presented.

For Interstate '82 is not merely I'76 a few years down the track with more era-particular toys to play with. I'82 is about innovation and evolution, and more importantly - about being a fun and involving game.

It has been six years since the death of Carlos Malochio. Groove Champion is up the proverbial creek after helping out his sister, Skye Champion. A couple of emergency transmissions later, it's clear that the

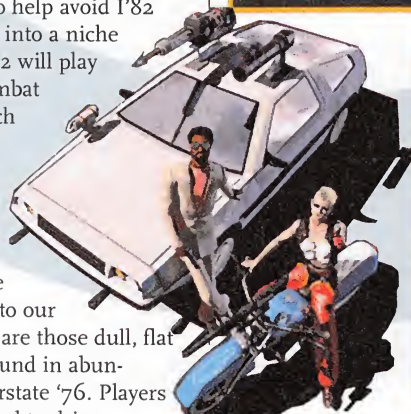
Groove has gone missing. Playing as Taurus, you end your peaceful retirement and hit the freeway in search of your ex-comrades. As is the natural course of things, Taurus soon discovers a government conspiracy that involves the use of helicopters posing as UFOs, Area 49 and the channelling of US funds to mysterious Central American rebels.

While the game's developers have put a lot of time and effort to ensure that the storyline is even more captivating than Interstate '76's, they've also conceded that a different approach was needed to help avoid I'82 being thrown into a niche basket. So I'82 will play less like a combat sim, and much more like an action game.

First off is the inclusion of a more detailed game world. Much to our delight, gone are those dull, flat open areas found in abundance in Interstate '76. Players will be required to drive through city streets, in underground mazes, even the interior of shopping centres. And that's just the start of it.

At the heart of Interstate '82 is the Dark Side game engine, which also same powering Activision's other flagship title - Heavy Gear II. The use of this heavily modified engine means gone are the more sim-like aspects of the Interstate experience. Instead, the game will handle a bit more like the latest first person shooter than ever before. Gone is gear shifting. To go forward, you push forward, and to reverse - pull back.

A little simpler to drive than '76, but with plenty of new features that should satisfy



While the control system of I'82 is less intensive than its predecessor, car management and upgrading now requires a bit more thought. Upgrades are now much more balanced, offering distinct advantages and disadvantages. For example, choosing a larger, more powerful upgrade, leaves little space left over for other weapons and upgrades. Careful decision making is a must.

On the weapons front, I'82 features a more exorbitant range of things that go boom. Where I'76 went for realism, I'82 has a bit more fun with its toys. As I'82 is set around Reagan's Star Wars defence era, Activision have included a whole swag of futuristic and fantastic toys. There's the Maser (which does microwave damage), Billiard Mines (bouncy miney thingies), the Carpoon (which turns off the target's engine) and the funky Laser Satellite (which fires lasers from an orbiting satellite at the

target). Flamethrowers and acid-throwers will help complement the remaining, more traditional, weapons.

The most outstanding feature of Interstate 82 however, has to be the ability to hop out of your car and traverse the game world on foot. Not only necessary in the single player game, new tactics are now possible in the multiplayer side of things. Players can now escape their damaged cars (and flaming death) and try their luck at "borrowing" a less cumbersome vehicle.

Interstate will require a graphics accelerator, and is set for release early '99.



JUST GOT BETTER! THE ULTIMATE SOCCER MANAGER



PREMIER MANAGER 99



Football is bigger than ever, more people watching, reading and playing it. Unlike a pure soccer simulation, Premier Manager Ninety Nine seeks to fulfil the dreams of millions of armchair football fanatics by giving them the chance to immerse themselves into the strategic world of football management. Upon it's release, this game will be the most realistic and playable football management simulation available.

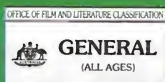
Premier Manager Ninety Nine encapsulates all that is good about football Management simulations from the coaching and finance elements to the 3D match engine with commentary from Mr. football 'Barry Davies'. This product has been over-hauled and updated now includes all the new data for the coming season. Premier Manager Ninety Nine will capitalise on the outstanding success of the #1 selling 97 & 98 versions and will be the biggest title of this genre.



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Fighting Steel

Category Naval sim
Players 1-4
Publisher SSI
Available March 1999

A new naval sim at last! Fighting Steel aims to blend complexity with ease of use, while maintaining a sense of involvement in the real-time role of commanding a fleet of ships from the British, German, American and Japanese fleets between 1939 and 1942.

90 ship classes from each of the respective navies will be modelled in a fully rendered and textured 3D world. You act as the Division Commander of a number of ships in 10 historical scenarios that include day and night time battles, and four linked scenario campaigns taken from Britain vs. Germany in the Atlantic and U.S. vs. Japan battles around Guadalcanal.

All the ships in the game are fully rendered and textured 3D models providing a high level of detail. An extraordinary array of

auto-camera and player controlled views give you views of the action from many different camera angles, constantly keeping your eyes on the critical events of the fight as they unfold. Supporting this are detailed combat and manoeuvring systems that accurately simulate naval surface combat, while the easy to use interface keeps you worrying about tactics, not the mechanics of how to get things done.

Fighting Steel models smoke, reduced visibility (bad weather and night), the use of starshells and searchlights for finding enemy ships in the dark. A dynamic mission generator will be included which will also allow you to create your own missions.

I enjoyed playing the game and manoeuvring the ships into

position then turning on the increase time feature to watch the battle unfold in quick time, only going back to issue orders when the enemy started to get a little too smart. Look out for this one in the next few months.

Maj Ian Lindgren



SU 27 Flanker 2.0

Category Flight sim
Players 1+multiplayer
Publisher SSI
Available March '99

A couple of years ago SSI cut a brilliant sim known as SU 27 Flanker. It was made by a Russian design team and had very simple graphics, but it was fast and furious and delivered exciting gameplay. It is now up to Version 1.5 which has added an extended Mission Editor allowing single missions to go over several days. A new phenomenon, known as the "Complex Long Mission", now allows up to 100 day user generated missions!

Development has progressed to a new and completely state of the art sim in SU 27 Flanker 2.0 that supports 3D graphics acceleration, MMX and AGP technologies that bring it to the forefront in graphics capability.

The game will feature a fully dynamic campaign system plus a mission editor/generator and

allows you to create your own missions to share or fly with friends. This together with a rumoured AWACS module seem to be bringing it close to the capabilities of Total Air War, but this time from the Russian perspective!

Air operations from a "Kuznetsov" class aircraft carrier, with support from Komsomolets and Nikolaev class frigates will make naval ops very interesting. Not to mention a multitude of air and land objects such as the Tu-160 Blackjack, SU-33, B-1 Lancer, B-52 Stratofortress, BTR-70 and BRDM-2 promise a variety in gameplay.

Multiplayer support will join up to 16 players in networking environments using IPX/SPX and TCP/IP protocols, and users will be able to join LAN and internet games while they are in progress. So you won't have to wait for that recalcitrant mate who is a bit slow or is having hardware difficulties!

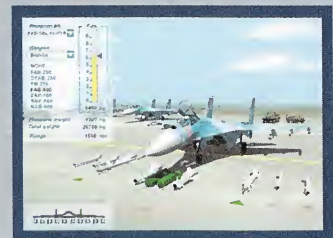
The beta is looking good with



Make like the Cold War isn't over and blow the crap out of some Imperialistic Yankee Dogs! Da!

a high degree of Russian text in the cockpit and comms modules. I see this game as filling a unique niche upon its release.

Maj Ian Lindgren



Mike Stewart's Pro Body Boarding

Category Body Boarding sim
Players 1-2
Publisher PIE
Available Mid '99

With the release of Wave Race 64 on the N64 back in late 1996, the gaming world got the chance to experience a phenomenal piece of gaming code. The water effects in Wave Race 64 were brilliant. More importantly though, the water behaviour was utterly convincing. The jet ski would hoon over the tranquil waters of lake, yet be thrown around with little regard in the more turbulent waters of choppy coast. Now, as any computer programmer will tell you, water is one of the hardest natural entities to simulate. The programmers of Wave Race 64 set a high standard that to this day has yet to be bettered.

And then along comes Gyro Software. The Australian company known for such titles as Zombie Wars, Halloween Harry, and the quirky Flight Of The

Amazon Queen. This time around, Gyro are having a crack at the water sports genre. Mike Stewart's Pro Body Boarding (formerly known as Surf Quest featuring Mike Stewart) is the name of the game. The mission - to boldly recreate the body boarding experience. From what we've seen so far, Gyro are doing a fantastic job.

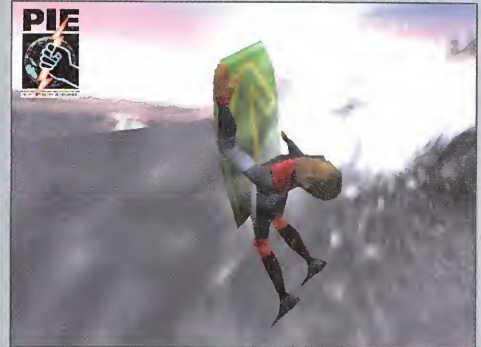
Pro Body Boarding plays like a body boarding competition where the aim is to gain the highest score by performing a number of tricks on a wave. The more difficult the trick, and the more dangerous the wave, the higher the score. Impeding you will be the duration of the wave, other boarders, photographers



(hey, they'll do anything!) and other man-made and natural obstructions (like reefs, jetties, buoys, etc). There are four game modes to choose from, being Contest (the main one), Arcade (longer waves for more tricks, coupled with obstacles to avoid), Practice and 2 Player versus mode. Players also get to surf at six international locations (including Australia's Shark Island and Kirra).

And the water effects? With a stack of water dynamics affecting the look and impact of the waves you race on, PBB is, at this early stage, looking very impressive indeed.

March Stepnik



The big question is whether obstacles will include 'local' surfers that threaten and taunt you for taking 'their' waves, and whether the prizes will include ChiKo Rolls...

Big Game Hunter II

Category Hunting sim
Players 1
Publisher Activision
Available 2nd Qtr '99

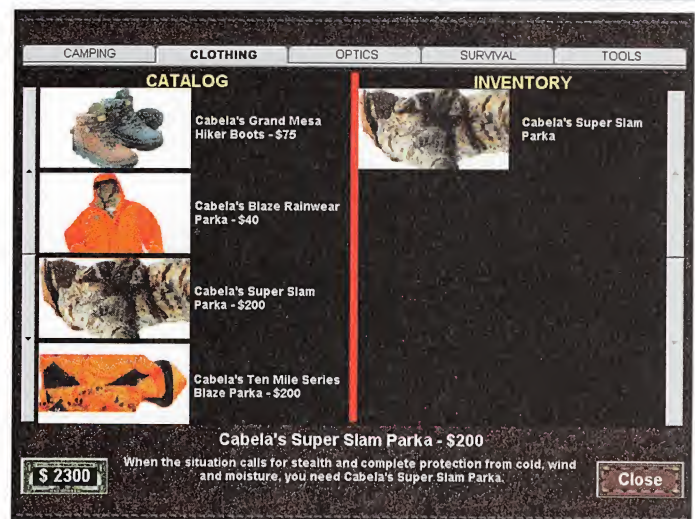
As any real hunter will tell you, if you run off into the wilderness in anything BUT the appropriate gear, you're more than likely to run into some trouble. For example, that bright orange parka that was simply you in the hunting store just isn't right. While in some cases other animals may mistake this display of cunning as an invitation to be mated and subsequently be attracted towards you, sadly this generally does not work.

If only you'd purchased an official Cabela (Registered Trademark) hunting jacket and camouflage cap! You may have avoided being the subject of ridicule at the hands of your less understanding companions and have had a better chance of scoring some pelts.

Which is what Big Game Hunter II is all about. At a time

where arcade shoot 'em ups parading under the guise of hunting sims are in abundance, BGH2 is about simulating all the more pertinent aspects of the hunting lifestyle. An experienced hunter knows that you don't just run into the woods with a firearm and start taking pot shots at anything that moves. The real hunter selects his expedition equipment with great care, knowing that mother nature generally isn't that forgiving.

So, before you can take to the woods and start injecting hot lead into some raw hide, there are many things you have to do, like take a general knowledge test and purchase all the right equipment (ranging from tents, clothing, oculars, scents, compasses and sleeping bags, to name but a few). Choose from four major destinations (Alberta, New Mexico, Colorado and Africa) and fifty locations to hunt from. Practice shooting at the lodge's indoor target range, and brush up on hunting techniques. Pick



one of 16 weapons and choose from over 16 ammunition types. Crack on to your virtual guide (who happens to be an attractive middle aged woman) whilst camping, then start stalking any one of the 18 species featured in the game, all in glorious 3D.

Big Game Hunter II is set to be THE definitive hunting simulation. Review soon.

This is hunting for the serious sportsman, as opposed to your average drunken inbred 'shoot anything that moves and plenty that doesn't' "sportsperson"



PLAYER MANAGER 98/99

Soccer Management is a natural for games, and this challenger to the established order is looking hot

Category Football Management

Players 1-Multi

Publisher Anco

Available 1st Qtr '98

Anco have a long history of football games behind them. Older readers may recall the Kick Off line that graced the Amiga and C64 back in the 80s. Originally devised as kickabout arcade-style soccer, the introduction of more complicated management options saw the series split in two. Thus, on the one hand there was Kick Off, while on the other, Player Manager.

One of the most enjoyable aspects of the Player Manager games has been its dual personality. While ostensibly a serious

management sim, it has also allowed the option for you to actually participate on the field. When you select the team you wish to manage, you'll find yourself as a member of the playing staff as well. And even more interestingly, you can only control yourself during the match, as the game doesn't use the closest-to-the-ball method of other games. Or you can just sit on the bench and watch, if you prefer.

This new version of Player Manager seems set to continue this tradition. It has the potential to be massively comprehensive. When you take up your contract as manager, you can choose the terms. This means you decide whether you want to concern yourself with training and financial matters in addition to organising the first team squad. It's



Anco return to the football management arena - with a bang

even possible to oversee the development of your club's stadium. Players are rated according to twenty or so varying skills that can be improved with the necessary training. During each match they also receive another bunch of ratings - including workrate, involvement, fatigue, and the number of good passes or runs they made - to help you monitor performances. Matches themselves are played out using a FIFA style 3D engine. You can either view it in full or simply get the highlights.

Promising features include a fairly detailed transfer system in which you must negotiate player contracts. Not only do you have to worry about wages, bonuses and various clauses, but simply arriving at the transfer deal is a task in itself. When you negoti-

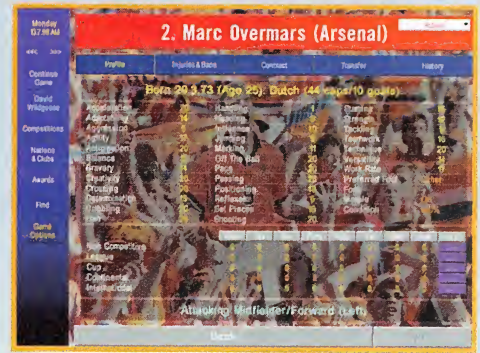
ate with a rival club, you have to propose a bid, then adjust it as the other club responds, and all the while a timer is ticking down. Fail to reach agreement before the timer runs out and you'll have to wait for another opportunity. If I remember correctly, I think Bullfrog's Theme Park had a similar system of negotiation, but this is definitely a first for a football sim.

The interface is the typical combination of icons and menus with generous lashings of statistics on every page. I did find the white text on such colourful backgrounds a little hard on the poor eyes, however.

If Anco can get the match engine producing realistic scorelines (always a problem for these types of games) and do a tad more research for their player ratings (Paul Ince with an Aggression rating of 24% - I don't think so!), then they could have a worthy challenger to the Championship Manager dynasty.

David Wildgoose

CHAMPIONSHIP MANAGER 3



Soccer Management, Part 2. The masters return!

Category Football Management
Players 1-Multi
Publisher Eidos
Available TBA

The Collyer brothers have dominated football management for as long as I can remember. Sure, they haven't won the World Cup, nor have they ever guided a club to a league championship, but - dammit! - they're undoubtedly the best in the business.

In case you were wondering, the Collyers are the authors of every Championship Manager

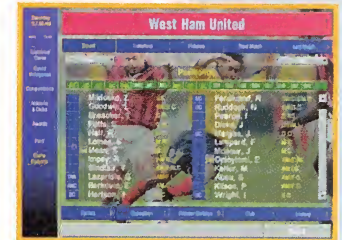
game thus far. CM2 97/98 is widely regarded as the best (that is, the deepest and most addictive) football management game ever created. CM3 is surely the only forthcoming title capable of mounting a credible challenge to its predecessor's Premier League crown. And that's enough football metaphors from me.

What's new here? Devotees of CM2 97/98's multiple-leagues-in-one-game option will peak with the news that CM3 boasts 15 national leagues to play. From Argentina to Sweden via Japan, you're favourite team is bound to be there. Unless you support an Australian team, of course.

Australian players are featured, but our national league isn't. The player ratings have also been vastly revamped and now total a memory-defying 31, as opposed to CM2 97/98's now pitiful 19. Incoming are acceleration, agility, anticipation, balance, bravery, crossing, handling (for goalkeepers, obviously), jumping, marking (returning from CM2), reflexes, teamwork, versatility and workrate. While out goes injury proneness, to everyone's relief. Also new is the Preferred Foot attribute. However, it remains distinct from the Right, Left or Centre indicated by the player's favoured position. Not sure what difference it will make at this stage.

Part of your management duties will now include taking care of the reserve team. Reserve matches are played the day prior to a normal league match and provide a useful chance to try out youngsters. Joe Cole was starring for West Ham reserves in the few matches I played. I figure he'll be in the first team by the end of the season, and I'm not just talking about the game here.

Several of CM2's weaker areas have been rectified as well. Transfer negotiations are now amazingly realistic. Wages, sign-on fees, goal and assist bonuses, release clauses, etc, all have to be

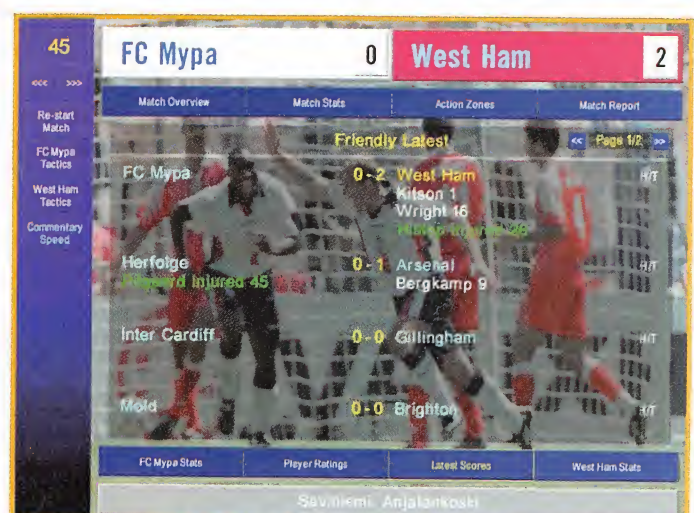
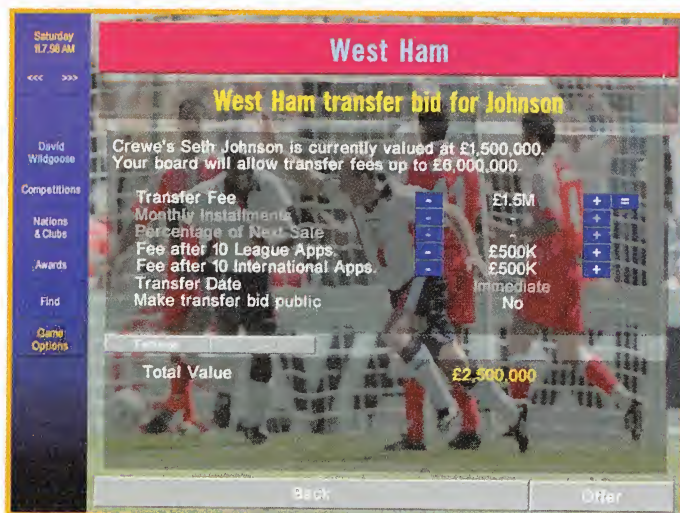


The King is back, bigger and better than ever

determined, while the transfer fees themselves can be weighted with extras like payments after a certain number of appearances. Better yet, when you reject an offer for one of your players by another club, you have to provide a reason why from the list given. These range from things like "Lampard is an indispensable member of our squad" to "That offer is totally unacceptable". Similarly, the match tactics are now significantly more complex, if you wish to exploit the new options. Otherwise it mostly functions like it did in CM2 97/98.

The presentation of the entire game is so much more interesting than any previous CM game, yet still somehow retains a level of accessibility and intuitivity that puts other games to shame. But we'll tell you about all that in the review in a few months. In the mean time, rest assured that this is a bloody great game.

David Wildgoose



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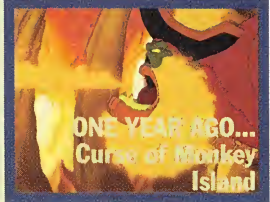
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REVIEWS

THE FALCON HAS LANDED



Here they are. The ones we call the 'Big Games'. Yeah, sure, we've got Tomb Raider 3 here. Woo hoo and more of the dreary same. Not a 'Big Game', that one - unless you chose to refer to the 100 trillion dollars Eidos will probably make from it. Turok 2 could have been a 'Big Game', but read our review to find out why it's not. Trespasser is another disappointment - oh how we looked forward to running around shooting hi-res. hardware accelerated dinosaurs... Oh what a tragic mess they made of it all. No, while there's quality gaming in abundance this issue, the highlight is surely what I'll just call 'The Big Game'.

Where there's dirt there's gold. Yes, the unbelievable has happened; Falcon 4.0 has finally been released. It's my job as Editor to rattle off a few words here about Falcon 4.0's significance, it's stupefying lateness and; most importantly, mind blowing quality - but I can't. Lost for words.

The wait for Falcon 4.0 has been as close to emotionally draining as can be, here in gamesland. Over the last 4 years, for various gaming publications, I must have written at least a dozen previews for this game, each referring to Falcon's immi-

nent release. I'm not dirty on MicroProse - despite their regular 6-monthly promises of it being 'days away from completion'. For this is one game where the designers and programmers have had the final say. If it had been up to Marketing, like most games, then Falcon 4.0 would have been released 2 years ago. Bless them for holding back. Falcon 4.0 is the deepest, most complete game ever. I know that here at PC PowerPlay we are big on the 'Best Ever's', and when we say it we always mean it, but there's a good reason why Falcon 4.0 has been so late, and that's because MicroProse have worked ceaselessly to make it the masterpiece that it is.

Now that it's really here a strange empty feeling is forming. There's nothing left to look forward too! Of course, there is, but Falcon 4.0 has reached such legendary status that all else pales by comparison.

If you're not into flight sims you won't care what I'm talking about, which is cool. Personally though, I've been hanging for this game ever since I first played Falcon 3.0. So there, it's my space here and I'm going off. Off to play Falcon 4.0. CYA!

Ben Mansill
Editor

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THE PC POWERPLAY SCORING SYSTEM

95%+	PLATINUM The Best. Virtually faultless, reserved for games which cause loss of sleep from thinking of nothing else.
90-94%	GOLD A classic. Either an unquestionable example of superiority within its genre, or a ground breaking game that'll be setting trends.
80-90%	A strong, eminently playable game. Hard to fault and likely to still be on the hard drive in 6 month's time.
60-80%	Competent and generally enjoyable. Flaws or mediocrity hold these games back from higher ratings.
40-60%	Average and ordinary. Not bad, not good. Ideal gift.
0-40%	Bad, really bad. Boring, shamelessly unoriginal, cheap and horrible.

FALCON 4.0

All hail the new king of flight sims. All hail gaming's next great leap forward.

I'm still not sure why I am surprised. But if I were to sum up my experience with Falcon 4.0 (F4) in a couple of words they would be: "multi-dimensional realism, tension, chaos, adventure, immersion and total exhaustion!" This game sets a firm base for a new breed of F4 extensions that will see successive upgrades and expansions well into the next decade, and the gaming value begins before you even load the software!

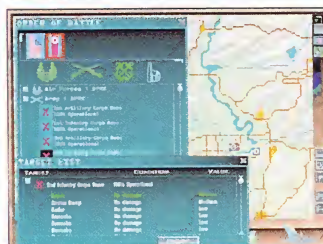
Special Edition

The first 200,000 units of the game sold world-wide will ship with a special Squadron Leader Limited Edition hard bound 3-ring binder. Inside what is potentially a collectors' item will be the CD, a 600 page Flight Handbook, a 50 page Cadet Manual (to get you up in the air quickly!), a 25 page Communications Manual that covers all Multiplayer issues of the game, a Keyboard Reference Chart and a detailed map of the Korean Peninsula showing air bases and target locations. In Australia, stocks are expected to run out within 2 weeks, and after that the binder will be replaced by traditional packaging. So get it while it's hot!

Rookie simmers should not be deterred by my comments above because the Setup Option at the Main Menu allows for 5 realism settings, and within each realism setting, there are 33 separate options for flight model, avionics, weapons effects and other gameplay settings. The various combinations of these give you a realism rating of anywhere between 1 and 100%.

Quick fix flight

Instant Action is your adrenaline hit! Choose from two options, Fighter Sweep or Moving Mud (ground threats), then select a start point. Unique to simming is F4's ability to allow you to move a square, which represents your Instant Action battlespace, to any position on the Korean Peninsula. Then hit Fly, and off you go, unlimited weapons and fuel, and no missions to plan. Your only



(top) Setup Options gives 5 realism settings and 33 other settings to make the overall realism between 1-100%. (middle) Modify any mission with the Tactical Engagement Editor (bottom) The Instant Action Menu showing the unique feature that allows you to start each mission anywhere in the Korean Peninsula.



decision is whether or not to toggle off the invincibility tab!

Dogfight is one of the three Multiplay areas where up to four teams of four players each participate in cooperative dogfights! An excellent innovation, but don't worry, cooperative single or campaign missions have not been overlooked! They are found in the next two game options.

One game fits all

Tactical Engagement is the equivalent of Single Missions.

Straight out of the box are 31 Training Missions that take you through every aspect of the F16C Block 50/52. Commence with take-off and landing, and progress to all 10 modes of the APG-68 radar, which includes Air to Air, Ground Moving Target and Sea modes, then move onto to mid-air refuelling and the LANTIRN pod. Each Training Mission is supported by up to 10 pages of explanation in the Flight Handbook for those willing to activate realistic avion-



(top) The Virtual Cockpit View is very useful because it gives a wider view. Here you would swear you were watching a movie as flight leader and wingman head off on a mission. (above) Note here how the instrumentation reflects off the canopy. Awesome realism. As it really is.

allows you to edit any saved mission, or create your own single missions or campaigns. All missions/campaigns can be swapped with other players and played cooperatively as single missions or campaigns! That last sentence was only 16 words long, but read them again and think, “create my own campaigns”, and “cooperative single missions or campaigns”. When that sinks in you realise that this is an awesome capability that gives you the power to make dynamic campaigns that last anywhere between one mission, to an infi-

Once in the campaign proper the world is alive with activity. Here the Mission Scheduler shows all the live missions. I have selected one, and been able to make myself a wingman rather than flight leader to assist the learning curve. Notice the role and status of each mission, and ground force updates in the top right corner.

ics, or a paragraph or two in the Cadet Manual for those starting at simplified avionics.

Fortunately, Tactical Engagement does not stop there. Its fundamental element is the Tactical Engagement Editor, which is also found in Campaigns. This powerful tool

nite number of missions over an infinite number of days. Words can't explain the significant value of this to gameplay! Nor can they fully describe the expandability that comes with cooperative multiplay missions and campaigns.

Campaign Korea

There is only one Campaign Area in F4, the Korean Peninsula, and obviously MicroProse plan to expand on this because there is a drop down box for more areas. Within the Korean Peninsula you can participate in three dynamic campaigns, Tiger Spirit, Rolling Fire and Iron Fortress. The first is the easier campaign, and like the whole game, is based upon the North Korean defence force crossing the Demilitarised Zone

and moving south. Iron Fortress is the hardest, and is based in the South Korean and US forces being pushed back to the Pusan perimeter, just as they were on the Korean War. Quite a challenge to re-take South Korea!

In each campaign you are immersed in war. The Mission Scheduler is the main interface and through it you see the progress of each mission, whether they are in briefing, enroute, or outbound! You can view each mission's Air Task Order, and receive constant Intel updates. View JTARS pictures to watch large ground movements and read constant ground force updates. At this stage your pulse begins to race.

Select the mission you want to take and then plan it. As with





any real-time mission, planning can take longer than the mission itself. Add flights to conduct suppression of air defences, others to provide top cover, and others to "ground pound" in front of you to clear the way; whatever takes your fancy in your strategy to successfully complete the mission. Plan heights, speed and actions at waypoints, and the all important "Time on Target" to synchronise the movement of each flight. Select weapons load-

out, and you can even individually load each aircraft!

It's just REAL

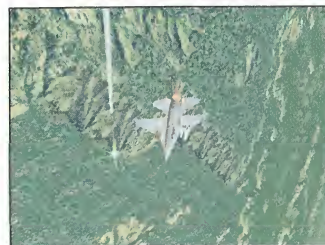
Once in the cockpit, communications is established with the Tower, AWACS, JSTARS, your flight and all other friendlies. You have to concentrate to stay focussed as the war lights up around you with Apaches, A-10s and F-14s ripping past. Ground battles open up in front of you as you move towards the forward



The cockpit is modelled precisely and most controls can be keyboard or mouse activated. Note here the Pilot's Kneeboard with mission critical information just a glance away. Other Callsigns in the area are written down to avoid confusion during radio communications.



The Terrain is absolutely breathtaking



edge of battle area. It's astonishing; a non-stop onslaught of radio chatter; some applies to you, the rest to the war! It becomes very stressful if you have placed yourself in command of a flight or wing and have other things to think of. Information overload if you're not careful.

I'm sure you can feel the quality of this game, so some brief words on other elements of gameplay are now appropriate. Graphically, the terrain is as photo-realistic as it gets. It can be a little muddled down low, but this is the least of your worries as you begin to see ground vehicles moving in front of dust trails, factories spewing out pollution, enemy vehicles dispersing as you close with them, and SAMs launching with ferocity.

Flight modelling in realistic mode behaves as it should and a complex, but easy to master, suite of keystrokes give you fingertip control over communications with all friendlies and specifically your wingmen.

I'm yet to find a fault in F4. Dawn, day, dusk and night, it stands by itself, and is the ultimate in variety, expandability and flexibility.

Maj Ian Lindgren

PLUS+



Be the first to buy Falcon 4.0 and pick up the special Squadron Leader Limited Edition binder. A collectors' item for die hard Falcon fans.

PLATINUM



Category Flight sim
Players 2 Players by Null Modem, 16 players by LAN (TCP/IP) or Internet (TCP/IP)
Publisher MicroProse
Price \$89.95
Rating G8+
Available Now

For Multiple realism settings. The ability to generate your own missions and campaigns. The ability to play any mission stand-alone or in cooperative and head to head multiplayer by LAN or Internet. Depth of mission planning

Against Only one campaign area in this first version of F4. Terrain graphics lose detail at low altitude levels, and I would have liked to see more fiery explosive effects. A hefty CPU bill with all options on. However, I did play it successfully with most graphics options above 65% on a P233 with 32 MB RAM and a 200 MB swap file.

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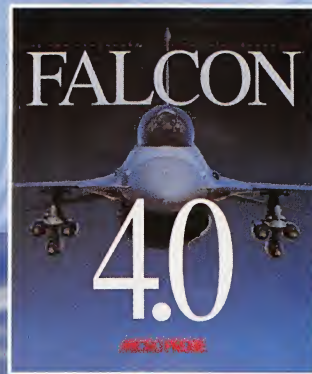


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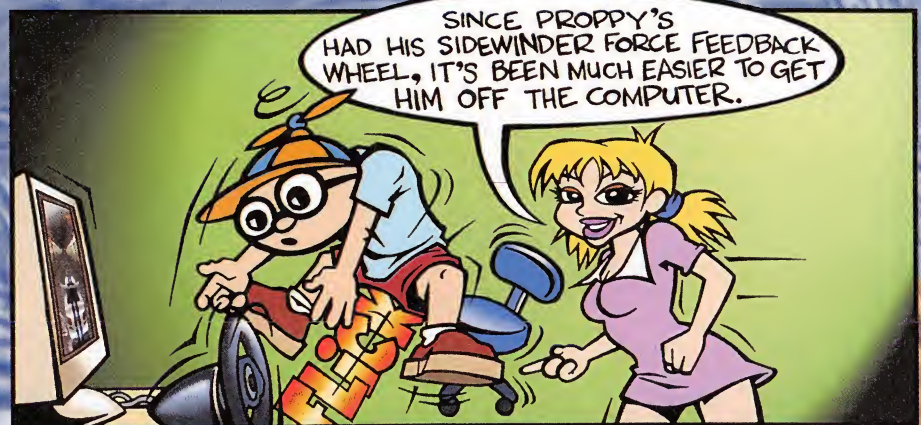
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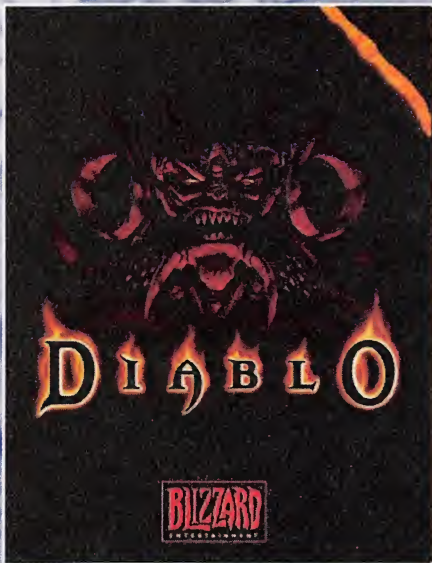
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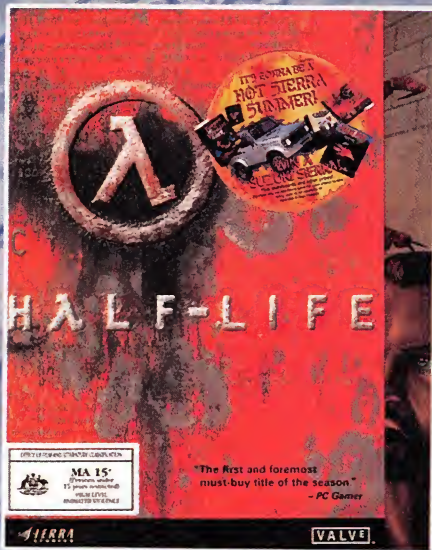
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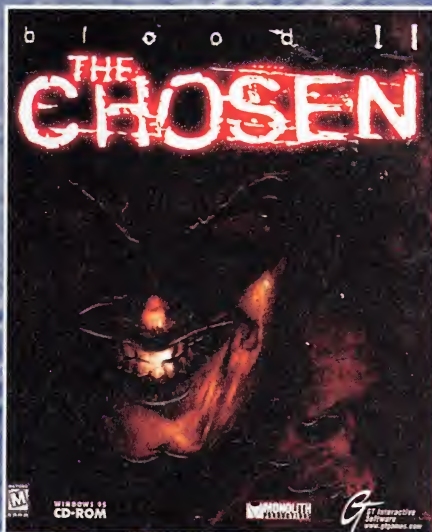


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THIEF: The Dark Project

Forget rocket jumps, triple Railgun kills, and floating health kits. Thief offers so much more

So I've broken into this rich guy's house, knifed a couple of his guards in the back and hidden their bodies so as not to arouse suspicion, when it all nearly comes unstuck in the kitchen. Opening the door a fraction, I peer inside and spy the cook fiddling about at the sink. In an attempt to mount a distraction to allow me to sneak up behind him without being noticed, I fire an arrow that clatters against the stone of the far wall. The cook is startled and, as he goes to check out what made the noise, I tiptoe into the room with my blackjack at the ready.

Too many cooks...

Unfortunately, as I'm halfway there, he turns around. "Wh-who are you?" he yelps, before exclaiming, "Help me!", and bolting out the door opposite. Thinking swiftly, I give up the chase and prepare for the inevitable arrival of the house guards. Readying several water arrows, I extinguish the torches and plunge the large hall into almost total darkness. The first guard shows up, being led - amazingly - by the very same cook, and begins searching for me. Circling around him, hugging close to the walls to avoid detection, I pull out another arrow and fire it into his back. The damn cook screams again, but is this time cut short by the weight of my blackjack thudding into the side of his head. As I drag their bodies into the store-room, I hear muffled footsteps as another guard patrols the floor above...

Believe it or not, that all happened to me during my first time playing Thief. My god, this is an incredible game.

Stop! Hammer time

You are Garrett, full-time master thief and part-time serial killer. Pickpocketing, backstabbing, cat burglary, these are the main activities of your shadowy profession. A guy called Cutty fixes work for you in the City, but the Hammerites - followers of the evil Order Of The

Hammer religious cult - disapprove of his line of business, going so far as to kidnap him only a short while into the game. It's up to you to find out what they really want. The game is split into missions, each one detailing some aspect of the larger story line. Moody cut-scenes between missions progress the tale, while letters, books, and even Garrett's useful voice-over during each mission flesh out the current scenario.

Massive missions

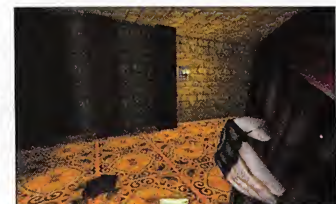
Over the whole game there are twelve missions in total, but this is deceptive. For a start, each one is massive, whether it be grand mansions, castles, factories or entire mining complexes. The three difficulty levels also provide entirely new experiences. Play the second mission on Normal and you have to sneak into a mountain-top prison through the mines beneath and find Cutty. Switch to Hard and, in addition, you have to retrieve an item of yours that another prisoner "borrowed", steal a certain amount of valuable stuff and then escape from the mines. Brave the Expert level and, again, in addition to the above, you have to steal twice as much stuff, find another guy in the prison, escape the mines with him and Cutty, AND you're not allowed to kill anyone. It's these changes in emphasis that make each difficulty a unique challenge. You have to approach things very differently if you know that you're going to have get back out alive after causing chaos. And, until you play, you just cannot imagine the difference it makes being told you're forbidden to kill anybody.

Thinking, not shooting

Thief may look like your typical Quake-clone action game, but it's really the complete opposite. In fact, you're going to have far more success in this



By way of explanation: we realise that many of these screenshots are quite dark, but the whole game is kinda played in shadows, you see...



game if you avoid as much action as possible. Sneaking from shadow to shadow is the only way to travel. You have a light sensor at the bottom of the screen - it darkens to indicate how well hidden by the shadows you are at any particular moment. Careful, though, because you can be seen more easily when moving or if you have a weapon drawn. Speaking of which, you carry a short-sword, blackjack, and bow with you at all times. There are several unusual arrow types you can



There are one or two niggling AI problems which will hopefully be addressed in a patch, but otherwise this is magnificent

purchase before each mission as well. Water arrows will put out torches and clean up conspicuous blood stains, fire arrows burn wood and cause great damage (but aren't very sneaky), moss arrows will soften your footsteps on noisy floors, and rope arrows allow you to scale walls and reach high places. Various lockpicks, potions and other devices (such as gas and flash bombs) are also available and extremely useful.

Superb sound FX

Mostly though, you'll be relying upon your wits and ingenuity to survive. Listening for footsteps and other telltale noises is crucial, as the sound effects and music exhibit the same kind of shocking originality on display elsewhere in the game. Developers Looking Glass have cleverly modelled the sound effects so that they travel through the game world in a realistic

manner. Sounds echo down corridors, travel round corners, are muffled through doors and walls, and take brilliant advantage of your underused 3D sound card. The sparse music is orchestrated to great dramatic effect, swelling appropriately just as you lean around that darkened corner to glimpse a new room or corridor. With guards shouting after you or simply chatting amongst themselves while on duty, the speech is also wonderfully atmospheric.

Not all good

For every oddity in the AI - guards seemingly failing to react to some noise or other - there are countless more moments that will leave you breathless and exhilarated. When games try something new, especially as complex as this (mapping the sound fx must be an algorithmic nightmare), you have to expect inconsistencies. What you might



not anticipate is just how brilliantly the game plays despite such problems. Since Thief sets its ambition for realism so high, it's perhaps more jarring than in other games when it fails. By comparison, it's tough to undermine the credibility of the Quake 2 or Unreal AI simply because they don't pretend to be lifelike in the first place.

Thief is a brave step forwards for game design. Ambition shouldn't be applauded on its own, but when it's coupled with such a fantastic game then we should give a standing ovation.

David Wildgoose



PLUS+

THIEF
THE DARK PROJECT

There are one or two niggling AI problems which will hopefully be addressed in a patch, but otherwise this is magnificent

www.lglass.com/thief/index.html

PLATINUM

95%

Category Action
Players 1
Publisher Eidos
Price \$89.95
Rating M
Available Now

For Utterly original, there's nothing out there like this. Great, innovative use of sound. Perhaps the most immersive first-person game yet created.

Against Long loading times. No multi-play - I'd love to see a Thief-match add-on!

Need P133 (with 3D card), P200 (without 3D card), 32MB RAM, 4xCD

Want P266, 64MB RAM, VoodooII, 8xCD

3D SUPPORT

Most major 3D cards supported

CARMAGEDDON II

Throw your morals out the window and prepare for more carnage, more outrage...and plenty more fun

Strap on the studded driving gloves people, because that bloodbath they call Carmageddon 2 is here, and it's everything we expected it to be. The guys at SCI clearly respect their fans and heed the feedback that they receive. Carmaz stays loyal to the original game with the same kind of exaggerated physics, driving model and overall gameplay. In fact, it would be fair to say Carmaz takes the original game, adds a whole lot more features, maps and cars to the whole shebang, and then updates the deal to take advantage of the latest PC hardware.

Realistic Splatter

Carmaz features a totally 3D world, as it seems you can't really produce a game these days without this 'essential' feature. Being totally 3D has both

plusses and minuses for Carmaz. The plusses are obvious - pedestrians are now 3D objects instead of sprites and will react with physical accuracy to being hit by, say, a Kenworth 18-wheeler going 200 miles an hour. With detachable limbs and an anatomically correct skeletal model, the gibfest is quite a sight. The downside is that the sequel runs a little slower than the original, even on a high-end system - the sensation of speed doesn't translate as well as it did in the original.

The maps are also about three-quarters the size of the original maps, but this is no biggie as the maps in the original game were positively huge. The reduction in size is easily made up for by the fact that the maps are now much more detailed, with destructible fences, lamp-posts and city traffic. You can

also break through the windows of many buildings and tear through offices and malls, something the world has clearly been waiting for in a computer game.

Silly Upgrades

Instead of ripping through 30-odd maps, Carmaz's single player game is mission-based. You have to race 3 maps per episode, then play one solo mission where the objectives vary from destroying all the satellite dishes on the rooftops in the city, to killing all the escaped hospital patients in the logging village, to my favourite - destroying the errant yellow dumptruck that is 5 stories high and out to get you.

One aspect of Carmaz that has been disappointingly removed from the original is the purchasing of upgrades.



The no-holds-barred mayhem of the original has been retained, along with some nice new innovations

Upgrades in the single-player game are now bought in-game just like in multiplayer, rather than from the garage like in the first game. This takes away some of the fun of winning money at the end of a race and entering the garage to purchase a shiny new V8 engine to replace your Inline-6 or some brand new titanium studs to replace your steel ones. In fact, upgrades are now just denoted by a slot, rather than a specific type of engine or armour, which takes away a lot of the fun of upgrading.

On the plus side

Changed for the better, however, is the way in which you purchase additional vehicles. You can now purchase any car you waste at the end of each race, which is a great improvement over the original where you could only purchase the car you wasted if it was your direct opponent. This means you can purchase almost every car as you progress through the game, giving you a real edge on how you race each map. For example, the street cars perform exceptionally well on tarmac,





(left) One of the most amusing challenges of the game; dealing with a 50ft tall dumptruck!
(below) Yes, they are elephants



Realistic Damage

The damage model in Carmaz is vastly improved, and is the best damage model I've seen in a driving game. Your car is made up of many parts that behave independently from the rest of the car - just like the real thing! Your car's bumper could become loose and drag alongside the car if you hit something, you could break a head/tail light, lose a door, break a window, lose a wheel, smash a fender, lose a bonnet - the list goes on, and each part is accurately modelled. But probably the most amazing part of this is watching a car split in two and explode when it hits a wall at high speed. I hit a wall at a 45-degree angle doing well over 200 miles an hour and my car broke apart at the exact angle I hit it - very impressive.



but slide all over the place on dirt (as you'd expect), whereas the off-road buggies handle really well on the dirt, but don't have power and speed to cut the mustard in the streets. All the old cars are still there plus heaps of new ones with some hilarious vehicles thrown in, like a big rig, a bus, a huge dumpster, and a WW2 Meschersmitt (no, it can't fly, and it carries no guns).



Fantastic Multiplayer

Carmaz finally introduces an 8-player network option, as well as, wait for it - TCP/IP play! Let me just say that if you haven't networked Carmageddon you don't know what you're missing out on. The multiplayer game is even more fun than the single player game, with a huge amount of games to choose from on top of the regular racing for checkpoints. Carmaz also introduces the Vampire game, which is a variant of Fox 'n' Hounds, where players must avoid being touched by the Vampire - the last player to avoid being touched is the winner. Carmaz also remains faithful to the original by including all the original deathmatch maps as well as adding some new ones to keep you and your pals amused for hours on end.

Carmaz is also as cleanly coded a game as the original. After playing it through, I could find no bugs in the game at all. If there are any bugs, they are so insignificant that they do not affect gameplay in the slightest. Given the nature of most game publishers these days of rushing out partially completed games, much kudos goes to SCI for doing the right thing and thoroughly testing their product.

If you're a fan of the first game, you'll have two possible opinions of Carmaz. Either you'll think it's so close to the original that it's not different enough to warrant purchase, or that it has kept all the charm of the original and simply refined and improved on it without changing the gameplay. Either way, the game is very difficult to fault whether you compare it to the original, or to every other driving game out there.

George Argy

GOLD	92%
Category	Driving sim
Players	1-8 (TCP/IP, IPX)
Publisher	Sega Ozisoft
Price	\$89.95
Rating	MA15+
Available	Now
For	Driving doesn't get much more fun than this. Speed, metal, carnage - what more could you want?
Against	Need a decent system to run at a high framerate. Representation of speed is a bit iffy, and driving model is still quite touchy.
Need	P166, 16MB RAM, 4xCD, 200 MB HDD
Want	P233, 32MB RAM, 8xCD, 3Dfx card
3D SUPPORT	
Direct 3D, 3Dfx Glide	

PLUS+

<http://carmageddon2.telefragged.com>

- Probably the best collection of Carmageddon and Carmageddon 2 news, patches and other such goodies.

TUROK 2: Seeds of Evil

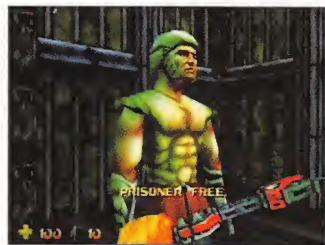
Turok's back, and still gutting dinosaurs, 'cept this time they've evolved!

Turok. The legendary dinosaur-shooting game. It was the only way of living the Jurassic Park dream for a long time. Now, we have the sequel, it seems that Turok was definitely a one-game concept. Or so think the developers, as this new title is a gross departure from the original game.

Allow me to explain. At the end of Turok 1, Turok tried to destroy the tool of ultimate power, the Chronoscepter, by throwing it into a lava pit. Fair enough. But no! Somehow, this awakened a leviathanic alien who has been sleeping, contained in his spaceship in the bowels of the earth for millennia, and you throwing that tricky magic trinket down there woke him up. Now he's pissed! He's trying to bust out of his spaceship, and if he succeeds, the resultant explosion will destroy our Known Universe. Pain in the rectum, that.

Interstellar shish kebabs

So the valiant Turok, forever entrusted to protect the earth and its inhabitants is off to stop the alien chap from getting out. Oh yes, did I mention the lizardmen? The lizardmen are servants of the Alien bloke, doing



some contract work while they visit our planet, and they have formed the distasteful opinion that the human race should be wiped out, and sold as the gristly bits on interstellar shish kebabs. The bastards.

Well, the Alien is trapped by six magic pyramids, which you have to protect from the lizardmen, who are trying to blow them up. See?

All this goes on in a generic "Age of Empires" kinda world, very Greco-Roman looking, where strange legionnaire type soldiers with copper armour and machine guns are getting carved up by the lizards, who apparently think they're pretty tough. Well, they haven't met Turok:

Dinosaur Hunter! Turok 2: Seeds of Evil does have a whole new array of weapons and odd new levels and



AI comparable to limp lettuce doesn't help to push this title above the pack



Incontinent old prune

There are a lot of new features to mention, like things that blow up on cue as you walk up to them, the improved animation, the marks on the walls where gunshots hit, and unique new weapons like the shredder which fires plasma-like discs that bounce all over the place. But it's all watery. It's lightweight. There's no underlying purpose or idea that makes it all gel. Things like the running speed being laboriously slow, yet the gun in your

monsters, but without a real focus or vision the best-made game can feel flat and uninspired. Which, unfortunately, is how Turok 2 feels.

As far as I can tell, it was a case of the director saying:

"Cripes, I'm out of ideas. Let's ask that goofy looking kid what he thinks!" and then hiring an eight year old as creative director for the project.





hands shakes vigorously about as though Turok were suffering from extreme caffeine overdose! Or quite possibly cardiac arrest. Seems the years haven't been kind to the old dude. Once a rippling, iron Adonis, he's been reduced to a portly, waddling, incontinent old prune.

That's only one example of the many little disjointed parts of this disappointing whole. The lizardmen, who seem to comprise ninety percent of your foes, constantly fire pink energy bolts that blind you with four or five lens flares glittering off them, making it highly difficult to see the opponent behind, let alone shoot straight at them. A boring, and shameless showcase of a mediocre special effect, that rapidly becomes tiresome.

Shakespearian theatre-sports

You are supposed to be able to shoot different parts of the lizard's bodies for different results. I did notice a few of them lost their heads and staggered, with the splashy new blood animation fountaining out of their severed neck. This seemed to be driven more by chance than actual cause and effect, however. Others died with a thoroughly amusing heart-clutching overdone Shakespearian theatre-sports style death. You can almost smell the cologne of the Thespian motion capture actor lingering in the air. The enemies are supposed to have stretchy skin that ripples over their muscles, maybe so, but when those muscles are attached to an AI system less dangerous than a bad cough, it suddenly becomes less exciting.

"Oh look, that dead thing I killed without thinking has stretchy skin on it. No wait, the whole thing's disappearing!"

Overall, it seems like a horribly nasty "built for console" title, with next to zero conversion



done for PC. A classic indicator of this is the meagre four player limit, coincidentally the same as the maximum players a Nintendo 64 can accommodate. Other things that are dead giveaways are things like dead bodies vanishing instantly after you kill them, to save the intense resources required to keep them in memory (sarcasm!). The version I played actually suffered a lot of the terrain "pop up" phenomenon, even when indoors! things more than ten metres away were vanishing and reappearing with unscientific fre-

Perfect for the Nintendo 64! And that's not a compliment, either

quency. Perhaps this is simply a realistic projection of Turok's elderly eyesight, as he squints myopically through horn-rimmed spectacles.

Sadly, it's not a mark on the first Turok game, which was fast, inspired and atmospheric. It's become a cardboard fiasco, that uses none of the PC's power. This is really one for the Nintendo crowd.

Ed Dawson

(above, left, below, below left, below that left, below right) The Lizardmen. Get used to them

PLUS+

TUROK
DINOSAUR HUNTER

The Ultimate 3D Person Shooter on the PC!

ENEMIES NEVER SEEN LIKE ONE

- Only 3D dinosaur PCs with unique attributes and personalities, visual, strategy, and killing arena tactical battles.
- Enemies have come to life and speak (and they can be killed). You can choose to kill them if you are "evil" or "good", however, you cannot kill them if you are "neutral".
- Fully featured dinosaur enemies (over 100 types) keep you on your toes at all times. They can be killed in many ways, including by using your own dinosaur.
- 3D Game Technology engine creates with realistic dinosaurs and a highly detailed and working world.

ENVIRONMENT'S THAT BURN! YOU!

<http://www.turok.com/turok2/>

54%

Category First person action
Players 1-4 over LAN
Publisher Acclaim
Price \$89.95
Rating MA15+
Available Now

For Good blood animation, large range of weapons.

Against Shameless re-hash of the original game, yet lacking all the things that made it good. 4 player multiplayer limit, preposterous imbalance of weapon strengths.

Need P200, 32MB RAM, D3D card

Want P333

3D SUPPORT
Glide and Direct3D

DELTA FORCE

A Special Forces game, or just a special game? Both, experience infantry combat and play a classic.

This game is loosely based on the tasks of the US Army's 1st Special Forces Operational Detachment-Delta (SFOD-D), otherwise known as Delta Force (DF). DF is one of the two US units tasked with external to the US counter terrorist missions. DF is much more than a 3D shooter; it's realistic, full of nervous tension, and it's so addictive that it's hard to stop playing.

Free Novaworld

The game includes two game types, Solo and Multiplayer. Solo gives you 40 missions in five campaign areas listed in increasing order of difficulty; Peru, Chad, Indonesia, Uzbekistan and Novaya Zemlya (get the atlas out!). The Solo missions are gripping, but as is becoming typical with Novalogic games, DF really excels in multiplayer by LAN, by Internet, or direct to Novaworld.

In Solo play, mission briefings are very detailed and commence with the J2 (Intelligence) brief, then go on to objectives, and locations and tasks of other



friendly forces. These critical information items are hyper-linked in each briefing, and once clicked on, focus you on the item on the Mission Map, thereby reinforcing the mission in your mind. Well done.

Copperhead Road

Waypoints are unfortunately preset, and this is a disadvantage. Luckily your GPS navigation system gives you freedom to manoeuvre and situational awareness to overcome this restriction. However DF really calls out for a random mission generator/editor which is a real oversight. Objectives include ambushing vehicles, infiltrating terrorist camps to steal vital intelligence data, rescuing POWs, annihilating terrorist camps, recovering the black-box from a downed F/A-18, destroying radar sites, and lasing targets for other ground forces such as Copperhead artillery rounds.

To do this you require weapons. A number of primary weapons are available such as the 5.56mm M4 with scope and underslung M203 40mm grenade launcher, the



Pure, 100% military gaming, with a great balance of realism and 1st person action. Alright!

M249 Squad Automatic Weapon, and the Barrett Light .50 calibre rifle with 8 x scope! This thing blows trees apart, and with the scope, is accurate well past 1km! You also carry secondary weapons such as a pistol, and additional stores like satchel charges, claymore mines, and the LAW (a tube launched rocket).

Solo man

Upon insertion, you find yourself in a quality Novalogic world where ground is undulating, covered in foliage, full of ravines, and where all objects can be targeted. Two other teams are with you (Alpha and Charlie) and they have their own supporting missions to achieve. Both teams check in via radio, and you can use the GPS map device to see their position relative to yours. You don't have any control over them as you should have, but luckily their own AI allows them to act relatively smartly. What you can do howev-



er, is support them by laying down covering fire, which does keep the enemies heads down. Unfortunately, you don't have a partner; you go solo. Special Forces do not act like this, and it is the only element of the game that really departs from reality. Gameplay itself is exciting; you are in the thick of it and there are no second chances! Take one, maybe two shots and you are dead. Once you die, it's game over and you can either replay the mission or quit. Movement is very fluid and you





can feel it as you run up or down a slope through the stunning terrain. You can run and shoot, kneel, or take up the lying prone position to shoot and observe. The terrain is so undulating that you can use the crawl function to keep your silhouette low and creep up on the enemy before sniping him, calling in artillery, or throwing grenades before following up with a running assault. The noise is realistic with rounds falling around you that make that typical "crack, thump" noise that only those of us that have been shot at, realise

is real. Blow up a vehicle or fuel dump and you'll hear pieces of it zing by your ears. Environmental noise from birds and other animals, and the wind in the Arctic missions really add to the game.

Stealth mode

Night missions are assisted by night vision goggles, and as it really is, targets are hard to identify because the goggles are not linked to thermal imaging devices. But once the enemy fires, tracer marks their location, and you can zoom in with the scope and take them out. But



Suddenly, Barry began to get the distinct feeling someone was watching him. Then he died



you've got to be careful because if you miss, they will automatically go to ground, move to out-flank you, and then you'll have a real problem!

Multitplayer games are a hoot at Novaworld. Capture the Flag, King of the Hill, and Deathmatches really allow you to work with others and effectively use items such as claymore mines and sniper rifles.

Delta Force is an incredible game; I was expecting something similar to Rainbow 6 and found that I was way off target. Instead, it is a 1st person shooter with the smoothness and realism of Rainbow 6, combined with real time action similar to Quake and Half Life. In my language, it's an elite infantryman's game; fast action, "on your feet" planning, moving and killing = mission success.

Maj Ian Lindgren

PLUS+

International Special Operations and Counterterrorist Units			
International Special Operations Forces			
United States			
U.S. Special Operations: Recruiting and Contact Information			
U.S. Navy Special Warfare Units	U.S. Army Special Operations Units	U.S. Air Force Special Operations Units	U.S. Marine Corps Special Operations Units
Joint Special Operations Command (JSOC) Units	SFOD-D "Delta Force"	Task Force 360 "Night Stalkers"	CSG-1, Team Six
CISR Affairs (CA)			
Psychological Operations (PSYOP)			

This is one very good site to study the US Special Forces, who they are, where they are deployed and what missions they do. Great pictures, great stories and hours of reading. <http://specialoperations.com/units/default.htm>

GOLD **91%**

Category Special Forces sim
Players 2 Players by Null Modem, 8 players by LAN (IPX/ODI) or Internet (TCP/IP), or up to 32 in Novaworld
Publisher Novalogic
Price \$89.95
Rating MA15+
Available Now

For Realistic terrain that is a dream to melt into and pursue your target. Sound and gameplay is immersive, and requires quick thinking for success

Against No ability to plan waypoints, no mission editor, and no ability to control the other teams

Need P166 MMX with 32 MB RAM (no MMX and the game won't even start)

Want PII 300 and 64 MB RAM

3D SUPPORT

No 3D acceleration. DF uses the Voxel Space 3 Graphics Engine. A 3Dfx patch is soon to be released.

SETTLERS 3

The little people are back in this gigantically addictive God sim

You'll have to excuse me if this review isn't very well written. It's just that I've been a little pressed for time lately. You see, I've been really, really busy, with some very, very important work. Work that just couldn't wait - extremely important stuff. No, really...oh fine, you've seen right through my pathetic excuses. It's those accursed little cute blue people that demand my attention for hours and hours on end. There's never a point where I'm not building up my little smurf-like infrastructure, aggressively expanding into new territories, setting up farms for my hardworking and hungry miners, smelting iron ore to make weapons for my troops to defend my territory and take over other's, making sure there's enough wood and stone to build buildings, making sure I have enough people to convey my goods to where they need to go, building ships to transport goods and people where they're needed...it just never stops! Help me! Heeeeeeelp me! Dear God please help me! I'm so very sadly addicted to this horrible, horrible game.

Horribly addictive

I don't mean horrible in that it's annoying, more that it's so powerfully addictive and complex that I just can't put it down and stop. It's the perfect all-nighter game - there's always just one more thing to do, one more piece of ground to take, one more resource to build to complete the set, and it just goes on, and on and on. Aaaaaaargh!

The story is rather silly,



admittedly, but it does set the scene quite well for the tasks that you will be confronted with. As it happens, three Gods from three civilisations have been rather well kept by their minions and have become slothful, fat, arrogant, and disrespectful of that whole God thing. They just want to sit around all day and eat grapes out of the bellybut-

tons of nubile young concubines (well, fair enough, I say). So anyway, the big God of all Gods comes down and isn't pleased with how the lesser Gods have been conducting themselves. He's pretty pissed off, in fact.

So much so that he decides to hold a contest between the three, where each picks a champion from their tribe to be set with the task of building up their civilisation, and of course only one of the three civilisations will remain once the dust settles.

Long-term gameplay

And so begins your arduous, entertaining, frustrating, and thoroughly addictive journey to



Graphically, it is only a small improvement over the previous Settlers, but it is very pretty

the land of the Settlers. There are three scenarios to play, with varying degrees of difficulty, each of which has a plentiful number of missions. This is



most definitely not a game that you will finish within a week - just as an example it took me literally about 8 hours of solid gameplay before I'd finished four of the easiest missions. It's not that the missions are incredibly arduous, but more so that it takes time to build up your civilisation to the point where you're ready to take on the opposition, and even then the opposing troops are usually plentiful (and happily enough, quite smart too).

Anyone who has played the previous Settlers games before will feel right at home with S3. The interface and methodology is practically the same as the previous games, though a few new gameplay elements have been added in. This time around, because of the 'God' themes,



religion and religious favours have become a part of the process of building your civilisation. Your smurf-like subjects can now build temples and wineries as offerings to their Gods. The results of offering wine to your drunkard God results in increased Mana, which can be used by the priests that the temples produce to cast spells either to benefit your people or hinder opposition troops. Admittedly, I haven't quite got-

ten through to the final stages of the game, but the priest's abilities don't seem to be all that spectacular. There are a couple of offensive spells, to cast 'fear' upon opposition troops, or to convert the heathens to your side, but they take up a high level of Mana and can only be rarely used (and the 'fear' spell didn't seem to be all that powerful either). It's not a useless feature, but one that has to be very wisely used to maximise impact.



The battles are on a much larger scale this time, and much more fun

Interface Improvement

Though previous Settlers players will be immediately at home, they'll also be immediately disappointed too. The interface for this game, considering how important it is to fine-tune your empire in terms of production, movement of goods and produce, still leaves a lot to be desired. The shortcomings of the previous Settlers games are once again in abundance, though thankfully this time you no longer have to place down paths for your peasants to use. Instead, they move about as they like, with the unfortunate side effect of spending a lot of the time standing around doing nothing, which is a bit disappointing. Another shortcoming of previous Settlers games was that trading between different areas of your colony was entirely too difficult, with unwieldy menus and silly Trade ships. S3 doesn't do a hell of a lot to improve upon this, and though things are made a little easier, this is still an area that could easily be improved more.

Even with these quibbles though, Settlers 3 is a wonderfully addictive game. I get the feeling that it's primarily designed for those already proficient at the art of Settling, because it really is quite difficult, and each and every mission will take a lot out of you. But it's worth it, really. Once you can sit back and watch your meticulously planned empire function oh so well, all your industries pumping away and your soldiers running rampant in enemy territory, I

defy anyone not to feel a very satisfying level of accomplishment. It's not all that different to the previous Settlers games, and things could have been improved upon but still, for anyone with a thirst for empire building you could do a hell of a lot worse than enter into the cute and (hellishly) addictive world of the Settlers.

Gareth Jones

PLUS+



88%

Category God sim
Players 1-?
Publisher Metro Games
Price \$89.95
Rating TBA
Available Now

For Immersive, intricate and detailed God sim with cute little people and plenty of long-term fun

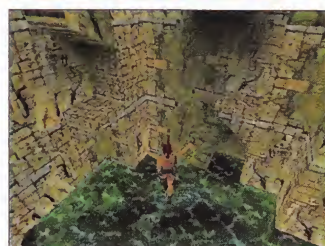
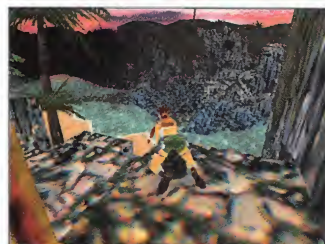
Against Menu systems and interface are still only adequate (and less than that in some cases), and it is pretty hard right from the start.

Need P100, 32MB RAM, 4xCD

Want P200+, 64MB RAM, lots of spare time

TOMB RAIDER 3

Lara the adventurer returns, and the entire world will be chuffed to know that this time her ponytail wobbles. As well.



We were sniffing around the PC PowerPlay archives the other day when we came across a review for Tomb Raider II - The Dagger Of Xian which for some reason or another, was never published. After having played through the bulk of Tomb Raider 3 - The Adventures Of Lara Croft over the last fortnight, we found that with just a couple of crafty keyword and numeric substitutions, the same review could have done the third instalment of this renowned series a surprising amount of justice. The question that lingered however, was not whether or not we were capable of such a thing, rather, but whether this eerie sense of familiarity has done more harm to Lara's digital antics than good.

Devilish kidneys

After loading up TR3, it becomes extremely tempting to subscribe to the former school of thought. The familiar game selection "ring" welcomes you back, as does an invitation to take the grand tour of Ms Croft's abode. The first level of the game smacks entirely of the under-

ground caverns featured in the first Croft outing. So what the kidneys is new?

Tomb Raider 3 is not simply Tomb Raider 2 plus extra levels, even though at times it may feel that way. Lara has three new moves/capabilities up her sleeve to play around with. Firstly there's the duck and crawl (which allows you to get down low and crawl through narrow openings). Next on the list is the monkey swing, which allows Lara to grab onto a frame overhead and pull herself across gaps and fissures. Lara's last new move is the dash, which gives you a short burst of extra speed (indicated by a bar in the top right hand corner of the screen). Lara can also ride a quad bike, boat, mine cart and use a kayak and an "underwater propulsion unit".

Flesh out the experience

While these new moves may seem negligible, each help to flesh out the Tomb Raider experience. Crawling allows for smaller and much less conspicuous passages to be featured, imparting a greater sense of being lost in vast underground network of tunnels and passages. The monkey swing allows for the more scenic and often direct route to be taken. The sprint/dash ensures that the players reflexes are in perfect working order, often being called upon in the least likely of places. Adding these moves to an already impressive repertoire available to Lara has allowed Core to create a more chaotic and devious bunch of levels.

Flapping ponytail!

While the visuals of TR3 may at first seem almost exactly like



See Lara run. See Lara jump. See Lara swing. See Lara bounce. See Lara ride a bike. See Lara turn around very, very slowly. See Lara shoot like a dyslexic blindperson. See Lara crawl. See, now you've seen it all.



those presented in TR and TR2, Core have done a fantastic job in refining them. The emphasis this time has been on small detail, usually on the periphery of vision. The idea behind this was to make the world through which Lara traverses seem more alive than previous efforts. Observe as Lara's pony tail flaps in one direction, remaining in place even as you have her facing another direction. Observe the rays of light that penetrate the upper foliage of the early jungle-based levels. Observe the footprints Lara leaves in the sand as she runs through it. Observe the



coloured lighting (which has thankfully not been overused). Observe transparent objects that introduce new puzzle elements (like the "invisible" blocks featured in the second level). The textures are so varied that in the Area 51 level, Quake 2 flashbacks may be experienced. Freaky stuff! We're talking visual flashbacks only. Sadly, the combat engine in TR3, while tweaked, is still a substandard and frustrating way to take down other enemies. Lara can backflip with grace off tall buildings, yet she still handles like an esky on ice when it comes to combat. Nothing like Quake II at all.

Double entendres

Two things stand out about this heroine. They're such a big part of her character, nay her persona, that they're practically slapping you in the face. They've been (many argue) the sole reason why Lara Croft is the most well-known and popular female computer character ever devised. These assets have earned Lara and her creators millions upon millions of dollars in cold hard currency. Yep, it could only be the witty British disposition (Lara has that unique ability to charm people whilst saying no in that slightly superior yet oddly forgiving way) coupled with the insatiable hunger for adventure. Without these, Lara probably wouldn't be where she is today.

Recycled engine

So it's only fitting that Core have spent less time tinkering with new game engines and other whiz bang effects and concentrated more on the adventuring side of things. Okay, so it's all generally been seen before. TR3's level design is however its saving grace - the reason why those that would have liked something a bit more



innovative will tolerate yet another recycled game engine. The levels are huge, complex, varied and (at times frustratingly) challenging. TR3 demands a lot of skill and patience. Quite frequently you'll get lost in an area, and only manage to find an escape after repeated backtracking. You start off in India, and make your way through England, the US, the South Pacific and even Antarctica. The English levels look fantastic, taking you from the Thames river to an underground station and beyond. Area 51 also looked a treat, and introduces some funky new traps to the game - lethal laser trip wires. All in all, Tomb Raider 3 is a fantastic action adventure.

Not about breasts!

In fact, many argue that it's Lara's knack for getting involved



in some fantastic adventuring which makes up the majority of the Croft appeal. While it's easy to get caught up in the "Which came first? The cleavage or the adventuring?" debate, those that appreciate that which made Lara so big in the first place (isn't it funny how any explanation of this will eventually lead to silicon?) are too busy enjoying the game to notice. I mean really. Does it matter if a computer generated character's chest measurements have fluctuated over the last 3 years? If you managed a passive look of complete incomprehension, a smile and a nod, or even a polite shake of the head there, then you're very likely going to have a ball with the latest Croft adventure. And as Lara's ever so faithful man servant would say - it's a "Jolly good show!".

March Stepnik



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88%

Category Action/Adventure
Players 1
Publisher Eidos
Price \$89.95
Rating TBA
Available Now

For Fantastic level design, varied locations, and immersive graphics.

Against Same old, say mould. Not much has changed.

Need P133, 16MB RAM, Win 9x

Want P166, 32MB RAM, Graphic Accelerator

3D SUPPORT
Direct3D supported

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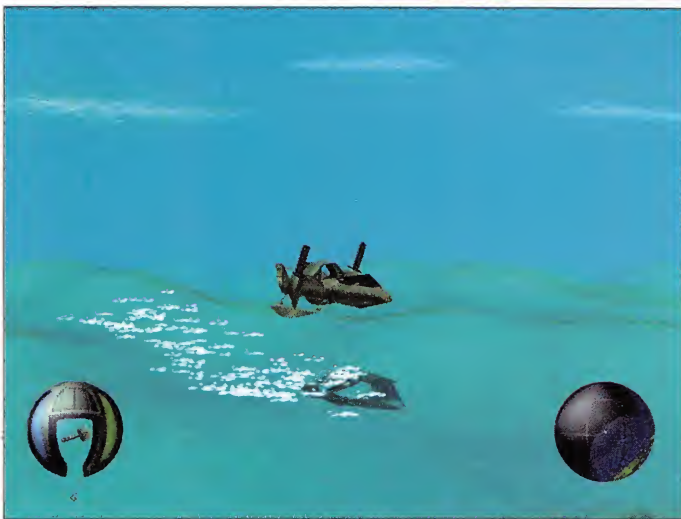
V2000

Another 'Hovercraft vs. Giant 3D Insects' game! Whoohoo!

The Giant Ants from Space are back! Still stinging from the trouncing they got last time, when we set off a skyscraper-sized Roach bomb, evacuated the Earth (brou-ha-ha), and came back after the weekend to clean up the mess, they've returned with some equally pissed beetle and wasp buddies and we've been finally outnumbered.

Xenomorph Genocide

But wait! A bunch of undergrad engineering students (majoring in Xenomorph Genocide 1.01) were working on the ultimate mobilised insectoid destruction platform of death, happy coincidence! But, they've only assembled one prototype. Well, chuck an ace pilot into that baby, and the world's future is

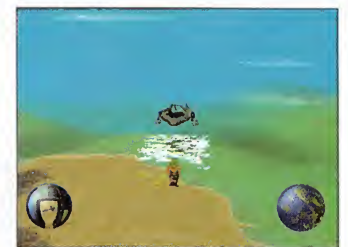
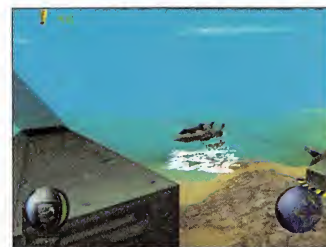


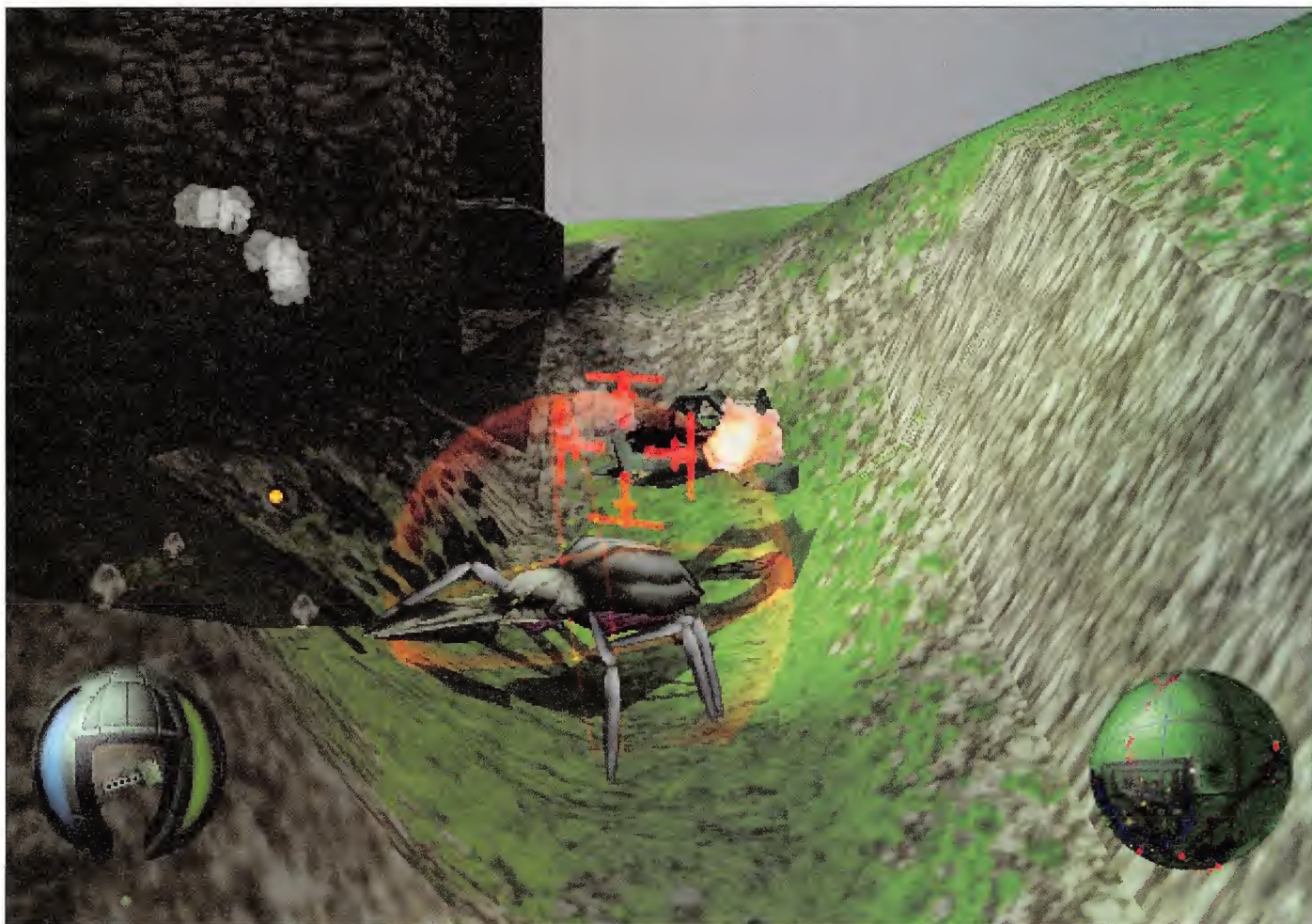
suddenly not so gloomy anymore! In fact, pizzeria staff rapidly returned to work in droves after the announcement, bolstering everyone's confidence. With a stack of ready-to microwave pan-sized supremes with extra olives stashed in the cockpit fridge, our stalwart flyboy mobilises for war. Now, nothing can stop him!

Zerodynamics

Our man flies the kickass war machine, that in this plane of reality is a goofy looking hov-

ercraft, with a flight ceiling of about three metres. It's fast, low-flying, and handles like a flat-bottomed jet ski. In this you get about the Populous-ish cute rolling hills and grassy knolls, blowing seven shades of, well, sashimi out of the exoskeletal intergalactic party-crashers wherever you find them. Flying about, the landscape is quite richly detailed with destructible trees, bushes, fences, buildings and walls. Almost anything you see can be razed to the ground, and often





"No, really doctor, I tell you, giant psychedelic spiders! They're all over me!"



is, by the crunchy-skinned invaders, who are a fairly standard insect interpretation of military units, heavy armoured beetles chew through defence and battlements, flimsy flying wasps deliver death from above, and giant ants orchestrate the activities.

Just plain silly

It's all a fairly standard scenario, with as much potential as any other, which unfortunately in V2000 is not realised. The major flaws present themselves in the interface and gameplay (oh, the horror!). You can only steer your craft by rotating it and applying forward thrust in a digital burst, while the forward/back component of your controls elevate and lower your gun attitude. While perhaps behaving in a realistic simulation of a hovercraft, it is very annoying to fly and shoot with any kind of accuracy without approaching tasks with a pedantic slowness. Also, elevating your guns is almost completely useless as your accuracy decreases almost instantly to

zero once you are more than twenty metres from a target. Thus, you have to face things off at near point-blank, taking a beating in the process.

The world is quite nicely circumnavigable, but the navigation is 50% luck, as the camera view only changes if your craft is going to be obscured by environment features. Hence you can very rarely see what the hell is approaching until you bounce off it at mach 3, causing the object in question to explode violently, nicely denting your hull.

It is quite an arcade style of game, requiring almost no knowledge to instantly play, with big iconic bonuses strewn throughout the world, and simple, no-brainer objectives.

Ed Dawson

PLUS+

45%

Category Nebulous 3rd person arcade shooting game
Players 1-8, via LAN (TCP/IP, IPX)
Publisher Grolier Interactive
Price \$ TBA
Rating G
Available Now

For Nice throwback to Amiga games of days gone past, highly destructible landscape

Against Too Console-ish, preposterous camera perspectives and targeting system.

Need P120, 16Mb RAM, 2Mb SVGA

Want P200, 32Mb RAM, Voodoo 2 or Riva TNT

3D SUPPORT

All Direct 3D compatible accelerators supported

ROGUE SQUADRON

It might be heavily console oriented, but dammit, it's still Star Wars, so it must be good

The Death Star has been mulched and the Empire sent packing, and you're at a loss for what to do next. As usual Wedge Antilles is trying to talk you into visiting Cygnus 3 for the gay Mardi Gras. "I've heard they've got this really good CD place full of old Pet Shop Boys albums!" said Wedge, and knowing how desperate he is to complete his collection you let him go alone while you plan the structure of our new Rogue Squadron. A squadron made up of the best, the finest, and most experienced pilots in the Rebel fleet, and, whenever we can get him out of his Village People outfits and into his flight suit, Wedge Antilles. The Empire isn't taking the destruction of the galaxy's biggest christmas tree ornament lightly and is gathering its forces for a counterstrike, so we must be ready.

N64 Memories

If you can remember when Nintendo's little 64 bit console machine was released here you may also remember a game called Shadows of The Empire, which was also released on PC sometime after. A common comment on the game at the

time was that, while the opening Hoth level was really good, most of the game was crap. Lucas Arts being as keen to please as they are immediately decided to make an entire game out of that level, and Rogue Squadron is the result.

The action in Lucas Arts' latest Star Wars title begins at a time between Star Wars and The Empire Strikes Back, conveniently avoiding the need to interfere with the Star Wars story too much. The structure of the game is as straight forward as it gets with missions flowing in a linear fashion and the player only needing to decide which craft will be used for that mission.

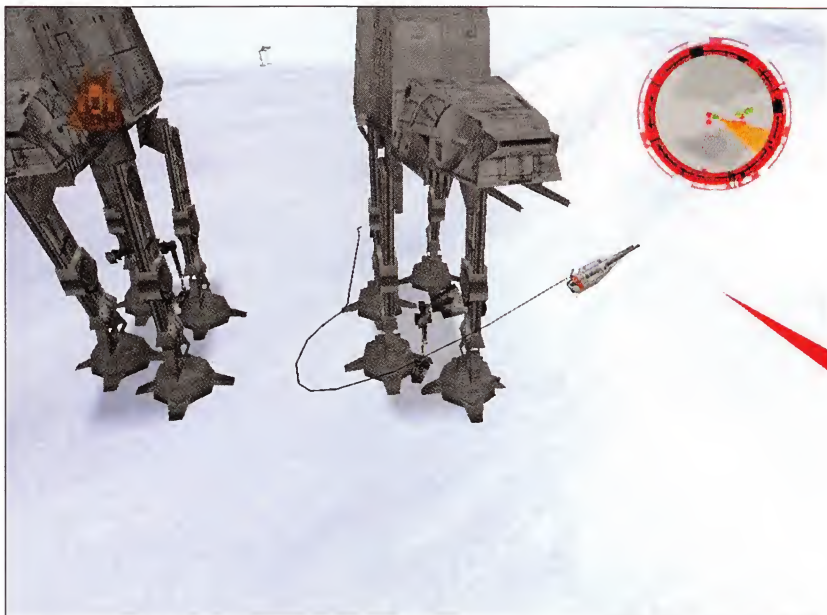
Fly the Falcon!

Included for your flying enjoyment are the usual suspects: Y-Wings, X-Wings, A-Wings and Snowspeeders but Lucas have also seen fit to throw in the Millennium Falcon and a new class of close support craft, the V-Wing. With Rogue Squadron being so 'arcade' there aren't too many actual differences between each craft's handling, just some minor variations in speed and turn radius, and the only thing that really sets them apart is their secondary weapons.

The Y-Wing has bombs and a great sighting mechanism to allow you to accurately drop them on targets below you, the V-Wing has two guided multiple war-head rocket launchers that make short

work of massed enemy units, the Falcon has a heavy missile, the X-Wing has a guided missile, the A-Wing an advanced guided missile, and the Speeder of course has its tow cable.

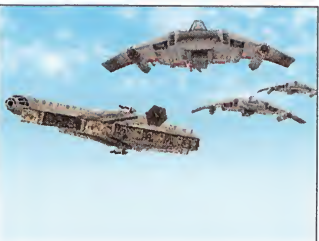
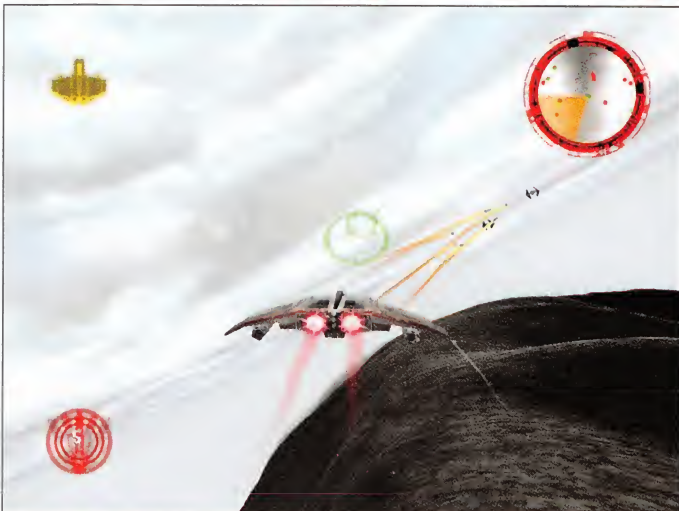
Each also has a different level of shielding which you have to be careful of - don't make the mistake of thinking you're in a heavily shielded craft when you ain't!



It's full of authentic Star Wars universe moments that make fans gush in most inappropriate ways

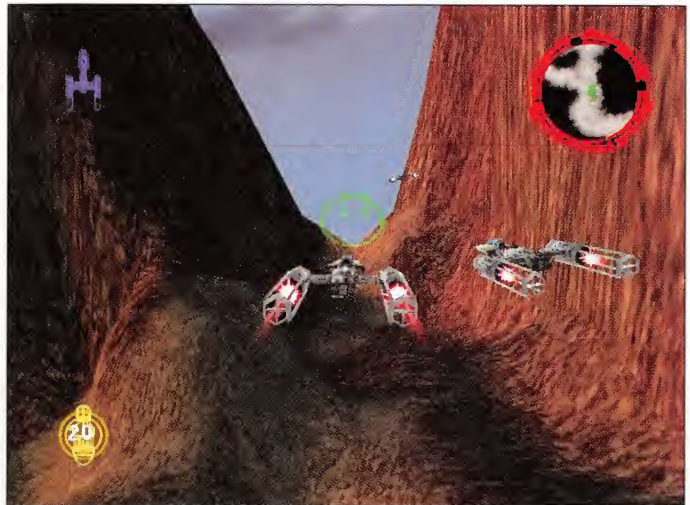
Secret nostalgia levels

As an extra added bonus to thrill the fans, LucasArts have even thrown in some secret 'nostalgia' levels as well. See the Death Star trench as it really looks in 1024x768 @ 32 bit reso-



lution (and it runs beautifully at that res with an 8MB Matrox G200 card too) Relive the battle for Hoth as it was in Shadows of the Empire, but with more walkers! You can even take on Zev, Dak or Wedge (when he gets back from Cygnus 3) in a Skyhopper race through the canyons and ravines of Tatooine.

Apart from the obvious strength of the license, the best thing about Rogue Squadron is its presentation. John Williams' audio is, as you would imagine, superb and along with the voice chatter really helps suck you into



Y-Wings - they might as well paint big bulls-eyes on these things! Target practice!

given the game here. If you liked X-Wing vs Tie, you might hate this. It isn't X-Wing vs Tie over land, unfortunately. For those of you who don't normally like flight sims and who love all things Star Wars this title should get your interest on the strength of its action, visuals and the strong use of the license.

George Soropos

the game. Just as impressive are the visuals. As I just said 1024x768 @ 32 is a doddle to this game engine on a decent Direct 3D card, the effects are spectacular and the gameworld looks very nice indeed.

Silly flight model

But then we get back to the gameplay. I would be lying to you if I said that the craft in Rogue Squadron are fun to fly. The truth is that it feels like most console based flight sims: there is no momentum, gravity, inertia, G-force or anything that might make things difficult. Certainly no options for stall and spin! Personally I was disappointed that Lucas had taken this approach, but when I was informed of the fact that Lucas made a lot more money from the N64 version of Shadows of the Empire than the PC version I realised why. This is an N64 game converted to the PC and so you have to put up with the limitations of that platform and the people who use it.

For this reason I qualify the mark that I've

PLUS+

<http://www.theforce.net>
One of the biggest & best unofficial Star Wars sites

82%

Category Action
Players 1
Publisher Lucas Arts
Price \$89.95
Rating G
Available Now

For It's Star Wars, of course. Spunky graphics and simple gameplay for the casual gamer and those who don't like steep learning curves.

Against Very console oriented in both design and execution, no physics in the flight model, enemy vehicles have prescribed paths instead of true AI.

Need Wingx, P166, 16MB RAM, 4xCD

Want P2 266, 3D card, 16xCD

3D SUPPORT

Direct 3D, 3Dfx

TRESPASSER

Another 'revolutionary' game falls by the wayside in the rush to cash in on the Xmas spending spree

It's always at Christmas when developers feel the most pressure from their publishers to get their projects out. Don't want to miss the Yuletide consumer frenzy now do we? When *Trespasser* arrived at my door it quickly became obvious that it wasn't finished, so what does one say about an unfinished game that has been boxed and put onto game-store shelves? Let's start this sorry tale from the beginning.

Seamus the genius

Many moons ago there was a game called *Flight Unlimited* which for the first (and so far, last) time incorporated true air-flow modelling and aerodynamic physics into its' flight engine. The man behind the physics engine was Seamus Blackley, a mathematical genius of great talent. No one has ever been able to program a flight physics engine like the one in *Flight Unlimited* since. In fact when Looking Glass did *FU2* they had to abandon the advanced flight model and return to the usual vector based engine as nobody but Seamus could write the code small and fast enough to work on a home PC. So where did Seamus go? To Dreamworks Interactive to start work on *Trespasser*!

The brief was to create a first person action title with a big adventure game feel to it, but most importantly to create the most physically realistic game world ever made and populate it with lifelike dinosaurs. A world in which the player could physically manipulate all the objects the way a real person would, and think in a 'real life' way to solve problems and develop strategies. Ambitious goals such as these are rarely achieved on the first attempt and *Trespasser* has proved to be no exception to that rule.

Thinking? Wassat then?

The gameworld is supposed to have physics real enough for players to be able to use the same sort of initiative that they would in real life. For example, if you come across an impenetrable bar-



rier in *Quake* you start looking for the 'switch' or try and blast it if it looks fragile. In *Trespasser* you can think the way you normally would in that situation: "Ah, that plank looks long enough to get me over that wall".



So you can grab the plank, lean it up against the barrier and walk over it. There is a complex section in the game that traps you inside the InGen base until you find a few hidden keycards. That is, until you figure out that you can just grab a box, put it next to the fence at the right spot and climb straight over without even worrying about finding the cards.

Jump, ouch! Doh!

It's things like this that make the game interesting and fresh but here there are negatives too.

"Mummy?" A lonely *Improbator* gently nudges you with affection, looking for a friend in this cold, cruel world





Looks great, runs slow... much like the dinosaur above, really. Bah!

Put bluntly the physics, while original, are poorly conceived and even more poorly executed. Jumping is the worst, the game takes your jumping action totally literally so that when you jump up onto a box, if the place where your tippy toes would be is touching that box, it goes flying as if you'd kicked it away. As you can imagine this is incredibly frustrating when you are trying to get up onto high places and belies the fact that most normal people don't jump as if they were doing Kangaroo impersonations,

they actually climb up onto things like crates.

Another interesting element of the game is the way in which you aim your weapons, using the actual sights on the guns rather than a static, unrealistic crosshair on the screen. Again this is a bit cumbersome, though of all the problems in the game this is the easiest one to overcome as you do actually get used to it after a while.

Spastic detection

Graphically, Trespasser promised to move mountains



during its development, so has it done so? The terrain engine is impressive in some ways, modelling vast open areas better than any of the current 3D engines such as Quake2 or Unreal. But again I have to qualify that by saying that you can injure yourself sometimes just by jumping up and down on the same spot! The collision detection seems to be highly spastic to say the least.

Of course the most important feature, graphically at least, are the dino's and unfortunately Dreamworks has let you down in this department as well. The dino's were supposed to be hardware bump mapped and beautiful, but the finished product falls a bit short of expectation. They do indeed look pretty good, but unless you get up REAL close, they could be any normal 3D model. When you do get close you can see their skin moving a bit but it's a very subtle effect at the best of times. What's more you never see more than three on screen at any one time which kind of takes the realism away a bit.

Coulda been...

In its favour, it must be said that Trespasser is a very atmospheric game with the haunting narration and wide open spaces providing something rare - a new gaming experience! The feeling of being lost on a tropical island is very tangible and if it wasn't for the bugs and problems Trespasser could have been the best adventure game of all time.

So now you're thinking "Yeah, yeah but there's a patch out to fix all that" The first 36MB download patch became available just before writing and yes I wasted half a day downloading a 36MB patch! Full credit to Dreamworks for trying something new but it's a bit rough to make people pay \$70-80 to

essentially be a beta tester! I think it's about time developers started to take more control over their projects so us gamers don't constantly end up buying unfinished products.

George Soropos

60%

Category Action/Adventure
Players 1
Publisher EA
Price \$89.95
Rating M
Available Now

For Dino freaks will get a kick out of the animals and environments, very atmospheric design with good audio adding a genuine adventure feel to the game.

Against It's not finished! The game's 'revolutionary' 3D engine has awful physics, nasty graphics glitches and is dreadfully slow, making gameplay more of a chore than a pleasure.

Need Win 9x, P166, 32 MB RAM, 4xCD

Want PIII 300, 24xCD, 3D accelerator (RivaTNT or Matrox G200 based cards preferable)

3D SUPPORT

Direct 3D, Glide

MICROSOFT COMBAT FLIGHT SIM

Though not quite up to the standard of EAW, Microsoft's first foray into combat flight sims is still a winner



Tally Ho! Again we're in Allied versus Axis forces during the Battle of Britain (1940) and the Battle over Europe (1943-1945). Microsoft Combat Flight Simulator (MCFS) is unique in the field of current WWII simulators in that optimum graphical enjoyment does not come from a 3Dfx graphics engine; rather, the game uses the tried and tested MS Flight Simulator 98 code. This sees the game sporting the best D3D accelerated photo-realistic terrain to date along with solid flight models.

Authentic broadcasts

Up front, the main menu allows you to select Training Missions, Free Flight, Quick Combat, Multiplayer, Single and Campaign Missions. Period music and radio broadcasts fill in the background at any menu. While this is not new, I found that MSCFS does it better than European Air War (EAW) and WWII Fighters because the sound is random, historical and very interesting.

15 Training Missions get you up and running with basic flight manoeuvres that commence with a video, followed by your "hands on" attempt with accompanied instructor narration.

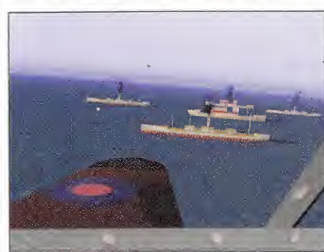
The Multiplayer menus and connections are very slick, with

an emphasis on head to head dogfighting with up to eight players. Unfortunately no cooperative multiplayer gameplay is offered, so MSCFS falls well behind EAW and WWII Fighters in multiplayer capability.

More planes please

Single and Campaign Missions allow you to fly the Spitfire Mk I and Mk IX, Hurricane Mk I, Messerschmitt Bf-109E and Bf-109G, Focke-Wulf 190-A8, P-47D Thunderbolt, and P-51D Mustang. No dual engined airframes! This is a tad on the light side compared to EAW with 20 single and dual engined aircraft! The single and campaign missions include a very limited briefing and no way to alter waypoints. They are scripted and to my dissatisfaction, lack any form of random action. The campaigns also luck out in my book, as they consist of a number of sequential historical missions - crash and burn in one and you can just go on to the next. This doesn't impress, and without a mission generator, is well short of what we expect from a modern flight sim in the same way that EAW was.

The strongest element of the game is the flight and damage model options that allow anywhere between 1-100% realism factor! This makes for a very tai-



lored flight sim. Moreover, if you are lucky enough to have a Microsoft Sidewinder Force Feedback Pro, you will find that MSCFS automatically detects this device, and your primary warfighting keystrokes are pre-programmed in!

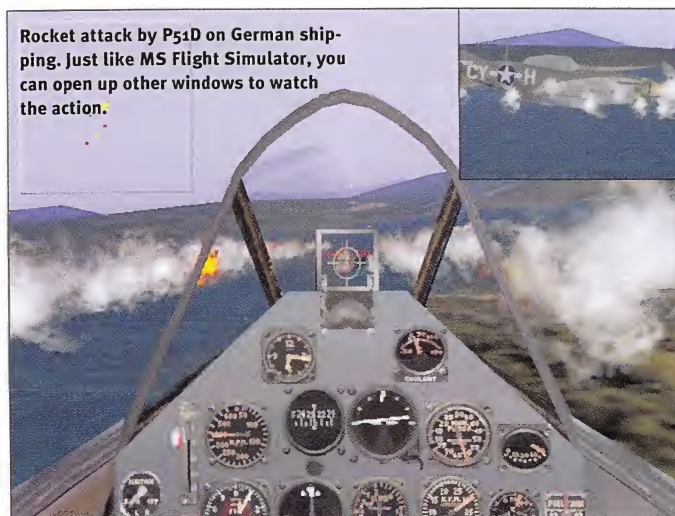
Realistic kneeboards

Overlooking the lack of flyable aircraft, the 2D cockpits are

gorgeous and created from authentic records. Every instrument is readable, and controls such as gear, flaps setting and fuel-mixture are keyboard or mouse activated. This introduces an element of gameplay where MSCFS has it over the other

ground targets burn very well and damage information is relayed so you get instant feedback of engagement success.

Rocket attack by P51D on German shipping. Just like MS Flight Simulator, you can open up other windows to watch the action.

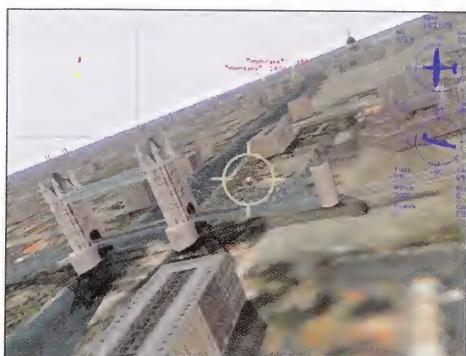




games on the market and stems from its FS98 origins. You can select ultra-realism settings that bring up kneeboard checklists for take-off, cruise, descent or landing! These even go as far as requiring you to alter the fuel-air mixture and propeller blade angles for optimum power at differing altitudes. Conversely, MSCFS also gives you the option of toggling on cheats such as a move to next waypoint, radar, lock on next target, aircraft labels and ranges. These add spice to the game as you are move from Rookie to Ace!

Sound barrier

Sound and Force Feedback (FF) combine to immerse you in the game. As the engine comes to life you can feel the vibrations as if you were sitting in the cockpit. Taxiing now has new meaning as you feel every bump in the runway, and in higher realism settings, engine torque effects cut in on landing and try to throw the aircraft in the opposite direction to the propeller; this really takes some getting used to! Flight models differ for every aircraft and are really noticeable in higher realism settings where you will feel the Thunderbolt attempt to break the sound barrier if you attack from above. This aspect can be unforgiving if you overstress the airframe! The only option; bail out!



(above) Dogfight over Paris in a P51D. Note that prominent buildings are well modelled at low levels, but the rest of the terrain is poor at low levels.

Hand pumping...

Damage is modelled very well, with on screen prompts advising you with what has been damaged, holes appearing in the windshield, and manual hand pumping required to get the gears down if the hydraulics become damaged. Firing on enemy aircraft is a pleasurable feeling as you watch it break up before your eyes, with bits and pieces falling off, followed by large chunks, and ultimately complete airframe brake-up or a fiery explosion. Love it!

Ground targets

Terrain graphics are stunning from height, but as with any photo-realistic terrain, they deteriorate as you get lower. The only exceptions are significant objects in the target areas that are really modelled well. Ground targets move, explode and fire back and the damage model reports what has been hit. Flak can be dam-



aging and you will be often told to watch out for it by your wingmen. This brings on another disappointing aspect of the game in that there is absolutely no control over your wingmen, or user initiated communications with airfields etc. Not up to today's standards at all.

Overall, I found this to be a fun sim, which really allows you to progress through the experience continuum thanks to its extensive flight model options.

Maj Ian Lindgren

(above) Tear apart the enemy, bit by bit, rake him from tail to nose! Gorgeous scenery below.

89%

Category 2 Players by Null Modem, 8 players by LAN (IPX) or Internet (TCP/IP), or numerous at MSN's Internet Gaming Zone
Players
Publisher Microsoft
Price \$89:95
Rating G
Available Now

For The best D3D accelerated photo-realistic terrain to date, solid flight models, and maximum user configurability

Against No ability to plan waypoints, no mission editor, no ability to control wingmen, and no cooperative multi-player capability

Need P200, 32 MB RAM

Want P233, 64 MB RAM

3D SUPPORT

Direct 3D fully supported

PLUS+



Visit <http://www.microsoft.com/games/combatfs/downloads.htm> to download the add-on mission editor which runs under MS Excel, new missions and other new options such as new radio chatter sound files and additional aircraft.

101: The 101st Airborne

Meticulous and detailed, but about as much fun as playing Spin The Bottle with your grandmother

Take the US Army's most elite troops, parachute them in behind enemy lines and what would you get? Well, if this were a movie they'd successfully infiltrate the enemy command centre, kill hundreds of enemy soldiers without sustaining a single injury, and single-handedly win the war; returning home to much backslapping and beer-quaffing just in time for dinner.

Military Intelligence

Cynicism aside, the reality of such situations is far less frivolous; a fact to which veterans of armed conflicts can attest. On June 6, 1944 the 101st Airborne Division parachuted into Normandy (territory then occupied by the Axis forces) under cover of darkness. Their missions were to secure the area in preparation for the Allied D-Day invasion which was to occur only hours later. Despite rigorous training and meticulous planning on the part of their superiors, things did not exactly go according to plan.

Realising the potential held in such an historic event, Empire Interactive have published a highly comprehensive strategy game that gives the player an unprecedented opportunity to participate in one of the most strategically important military campaigns of the twentieth century.

Within the game there are nine separate missions with objectives ranging from severing vital enemy supply lines to demolishing anti-aircraft artillery emplacements. The entire campaign area is comprised of forty two individual maps. These maps cover an area approximately five screens by eight screens and feature varying terrain types including agricultural areas and dense forests.



Toothbrush warfare

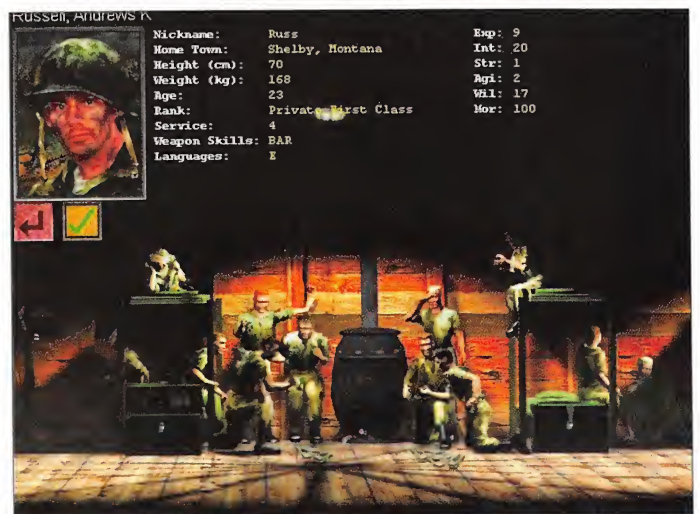
Equipment including clothing, personal effects, rations and maps must also be allocated to each troop. Individual troops have varying encumbrance tolerance levels, making careful management of resources a must. Many players will find it difficult (if not impossible) to subdue enemy soldiers with nothing more than toothbrushes and compasses, so their troops must be equipped with suitable weapons. Weapons loadouts must reflect training specialties, so players can't take the easy way out by hunting Nazis with a full complement of rocket launchers - Wolfenstein this ain't. Various makes of hand guns, subma-

chine guns, rifles and machine guns are also at the player's disposal, and for those who really like to party, anti-personnel grenades and satchel charges are included for their amusement.

Irrigation danger

In designing the game, of primary concern to Empire Interactive was his-

caption caption caption caption caption
caption caption caption caption caption



RAILROAD TYCOON 2

One of the granddaddies of the strategy genre makes a comeback, bigger and better than ever

The strategy gaming populace has waited a long time for Railroad Tycoon II, and the wait has been worth every second.

Railroad Tycoon could only ever be considered a classic. Around eight years ago it was first unleashed upon an unsuspecting gaming fraternity and quite a stir it produced too, firstly because of its (initially) inane concept and then later due to its rock solid gameplay. Finally we have been bestowed a sequel.

No Sid!

The first thing you should know about this sequel is that Railroad Tycoon II (RRT2) has not been developed by Sid Meier. This might seem like a pity to begin with for those who have seen what the master has done over the years. It's obvious though that from the outset Poptop Software knew they had to create something which borrowed heavily from the original as well as add to it in such a way that RRT fanatics wouldn't be screaming blue murder at their changes. This is something they have done almost without exception, for RRT2 is a very fine piece of software, and breathes some well needed life into the C&C-driven Real Time Strategy genre of the last few years.

Even though the two versions of the game are almost eight years apart, the similarities are striking. The concepts, style and



game mechanics are almost identical and this could only be considered a good thing. Of course there are additions and noteworthy ones at that, but its nice to know that they have taken the hardcore gamers into mind in creating this game, something which precious few developers do these days.

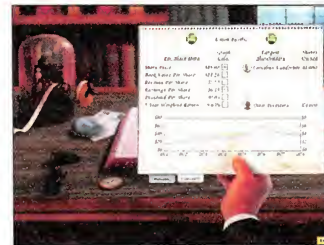
Be like Mussolini

For anyone who hasn't played the original Railroad Tycoon, the game is so simple and complex



at the same time, it's brilliant. The idea is to simply create a network of railways and run trains on them, with the ultimate goal of making a pile more money than anyone else. As we stated before, the concept has remained the same, but has been added to immensely.

The first of these additions you'll notice is the graphics. Gone is the top down grid and in is the new isometric view. Unlike most views like this one such as SimCity 2000 and Transport Tycoon, RRT2's 3D engine isn't made up of the "Lego" style 3D blocks of these other games. Instead sweeping plains and towering cliffs are made possible, the terrain is more akin to games like The Settlers than any other strategy title around at this stage and they really add to the realism effect of the game.



Buy and sell shares in your opponents companies. Oh, the thrill of corporate warfare!

Choice, choice, choice

The new terrain system has much more of a bearing on your choice of route and the trains you run than ever before. For your trains to make their destination in a satisfactory time you're going to have to choose the fastest route, and if you think that is always the shortest



AGE OF EMPIRES: THE RISE OF ROME

Much more than an avaricious cash-in, this expansion pack truly expands the joy of playing one of the great RTS's

As with anything, there's always a beginning. Yes, Rome was the heart of an empire whose reach was vast and whose presence was felt, especially in the graves of those that stood in its way. Yea verily, the Roman empire had also pioneered the toga party, where scantily clad women would elusively giggle and pop only the most luscious of grapes from their bellybuttons into the mouths of rotund senators. Yes, even before the rot and spoils of excess had been set, there stood a mighty and fearsome empire. Preceding all this however, was the Beginning. Behind the glory lies a tale of a struggle to power by a small tribe of people that had migrated from the north of Europe and had settled in the region now known as Rome, Italy. This is where you begin.

More, more, more

The Rise Of Rome is the first expansion pack for the immensely popular Age of Empires real time strategy game. While some developers are quite happy to chuck in a swag of new mis-

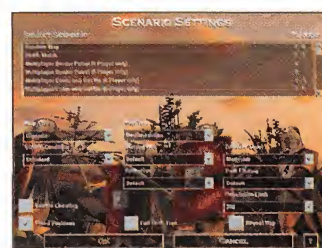
sions, a couple of new cut scenes and maybe the odd unit or two and flog the thing for fifty bucks a pop, some have started to realise that the gaming public wants more. It needs more. And that we won't accept anything less. More than a year after the release of AoE, The Rise of Rome (RoR) stands as testament that there are game developers lurking about the place that still care about ensuring that their games stand second to none. Ensemble Studios went back to the drawing board (and yes, Bruce Shelley worked on RoR too), had a good think about what could have made AoE even stronger, and have given us a set of challenging new single player missions, a couple of new units and a few warm and fuzzy cut scenes to tide us over till Age of Empires 2 makes it our way. This alone, judged solely on quality, would be enough to warrant all but the most anti-AoE enthusiast to make this a must purchase. But that's not all. Ensemble have gone further and added in a slew of features, the least of which address those few nagging problems encountered with AoE.

Finally; queuing

The first big one which has to be mentioned at this point is the ability to queue units in production! As any AoE veteran will understand and appreciate, this feature does absolute



One of the most enduring RTS games gets a fresh lease on life with an expansion pack that puts so many others to shame



wonders in helping coordinate a more relaxed style of early empire-expanding management. The other major feature which needs mentioning is the frustrating population limit that stood out in AoE. While many players argue that this restriction ensured a more historically accurate battle, multiplayer suffered (if only slightly) because of this, as did the single player game (to a small but vocal collection of players). Players (especially those that thrived on multiplayer) hungered for epic battles on a much grander scale. Well, RoR also addresses this restriction, and in a pleasingly intelligent manner. For multiplayer, the unit maximum is set at the options screen. In single player, the bronze age technology Logistics (researched at the gov-

ernment centre) results in all barracks units counting as only half a population point (thanks to greater efficiency). Theoretically, if you had no villagers, you can now have 100 under your command. Effectively, you can cheat the population limit and increase the size of your armies in preparation for you next military strike. Hallelujah.

Elephants, camels, and martyrs

Besides these two major enhancements, RoR is literally rolling out the list of new features. There are five new units to play around with - the Armoured





Elephant (upgrade of the powerful War Elephant, available in the Iron Age), a Camel Rider (Bronze Age unit with attack bonuses against most other ground units), a Fire Galley (Iron Age ship that catapults pots of fire for increased damage, the Scythe Chariot (a more powerful version of the chariot, available in the Iron Age) and last but not least, the humble Slinger (a Tool Age unit that receives attack bonuses against other projectile based units). Four new technologies also enhance the experience - Logistics (Bronze Age), Martyrdom (Iron Age tech that allows an instant conversion of an enemy unit by sacrificing your priest), Medicine (Increases

the priest's healing rate, Iron Age) and Tower Shield (gives greater protection against missile based units and weapons). Four new civilisations have also been included to round out the title, each with their own strengths and weaknesses - the Carthaginian, the Macedonian, the Palmyran and of course the Roman. To round out the quartet theme here, there are four new background tile sets, which while pretty, blend in with the game so much that they're hardly noticed.

Heading home

And then there are the seemingly small, yet invaluable, additions and tweaks. After sound cues (an attack, completion of a



unit, the exhaustion of a farm, etc), hitting the home key will take you to the area - repeated presses take you to the last 5 sound cues on the map. Double clicking on a unit will select all units of that type on screen. F11 brings up a population status screen in game. In an allied game, allied town centres are visible. This is just to name a few of the more obvious ones, too.

Veterans challenge

As for the campaigns themselves, there are four new ones (with twenty missions in all) dealing with, wait for it, the rise of Roman empire. As such there's a healthy mix of defensive missions (as you struggle to power) and offensive missions (as you seek to expand your territory), as well as a welcome blend of land and sea based battles. You'll battle Mark Antony, Cleopatra, and Hannibal. And the challenge here is great. You thought that AoE featured some tough missions? Even on a medium difficulty setting, the RoR missions pose a formidable challenge for even the hardened AoE veteran. Newcomers will find some salvation in lowering the difficulty setting.

There was a rumour in circulation prior to the release of RoR that the full version of Age

PLUS+

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<http://www.coophotels.com/>
You know you need to visit...

It's got a little bit of everything - new units, enhanced gameplay, new scenarios, and new buildings and upgrades too

Of Empires would not be necessary to play the game. Whether a false rumour or an unfortunate omission, Age of Empires IS required to play The Rise Of Rome. Still, if you've never gotten around to experiencing the magic of AoE, The Rise of Rome represents a perfect opportunity

to get yourself acquainted with it. A fantastic example of what an expansion pack should be - a package that not only prolongs the joyous experience gained from the full game, but enhances it.

March Stepnik

GOLD 90%

Category RTS
Players 1-8 (IPX, LAN)
Publisher Microsoft
Price \$49.95
Rating G8+
Available Now

For Larger maps! Challenging missions! Ability to queue units! Population limit increase! Stacks of minor enhancements! An expansion pack as opposed to being simply a mission pack.

Against It's not AoE 2. For those wanting a brand new AoE experience, this isn't it.

Need Win 95, P90, 16MB RAM, Original AoE

Want P166, 32MB RAM

WWII FIGHTERS

Jane's does World War 2. Combat simming in a clean and friendly world.

Jane's foray into the WWII flight sim market takes a high-risk high pay-off approach. It is not just a flight sim, but also a military history encyclopedia. It does have its faults, but WWII Fighters takes graphics and damage modelling to new heights, and in terms of game-play and potential life of the HDD, it's second only to EAW.

Glen Miller Big Band!

The high risk element of Jane's strategy surrounds the decision to focus single and campaign missions on the historical 1944 Battle of Ardennes, or Battle of the Bulge, as it was also known. The Main Menu gives you the impression of entering the foyer of a WWII aircraft museum, complete with background music from the Glen Miller Big Band! Where to go? A poster on the wall gives you three options. You can duck away and read a series of articles on the Battle of Ardennes ranging from why Hitler almost succeeded in breaking out, to how the Allied forces finally got the upper-hand. All this is supported by a lengthy video. Alternatively you can move left or right over the wall poster to visit detailed written and film information on air and land forces in the Battle. There's a bit here for every taste ranging from the B26 Marauder, the Sherman Tank, to the infamous German 88mm AA gun!

You can also choose a Fly Now option (Instant Action), instead of the "Poster Tour", and your other two Main Menu options are the Hanger on the left, or the War Room on the right. The Hanger is again historical in nature and depicts the seven fly-able aircraft, well short of EAW. On show are the P-51D, P-38J, P-47D, BF 109G-6, FW 190A-8, Me-262A-1A and the Spitfire Mk IX. At least you get the dual engined P38J and jet engined ME-262 which puts it a tad ahead of MS Combat Flight Simulator (MSCFS). Click on any cockpit and you will be transported into a magnificently rendered cockpit view complete with narration. Click on other elements, like the armament and engine, and you are treated to the same audiovisual feast. You can also take each aircraft for a test flight in a non-hostile environment. This is a "boy's own tour" of each aircraft, and it captured my imagination and that of my 13 year old son! It's well done and proof that Jane's risky strategy has paid off.

War Room

The War Room is the action area and comprises four key elements; Campaign and Single Missions, Quick Missions and a



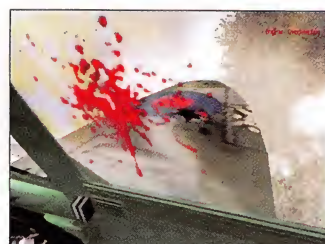
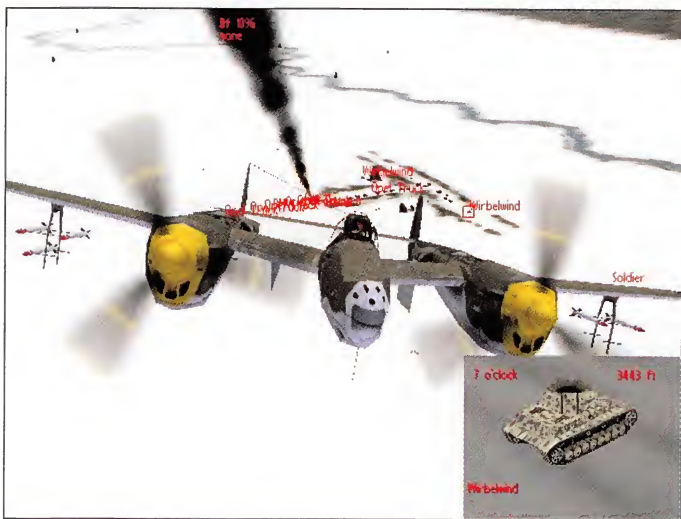
We do like a nice cockpit, and this one is beautiful!

Mission Builder. Campaign Missions allow you to fly a number of Allied and German historical missions during the Battle of Ardennes. Single Missions give you 20 Allied, 15 German and 7 Training Missions for each side. You get a reasonable briefing, then enter the Mission Builder to see waypoints, actions at waypoints, flight loadout and

so on. You can't change any aspect of the mission, but what you can do is load the mission separately in the Mission Builder and rebuild it.

All of these missions can be used in multiplayer mode as head to head or cooperative missions, so this capability and its supporting Mission Builder are very strong features of this





Feels good

Flight modelling offers a multitude of settings in the same way as MSCFS. However, I felt that MSCFS and EAW had more realistic flight models because at the higher settings WWII Fighters didn't bleed speed, or spin and stall as readily. However, my biggest gripe with the game is its total lack of force feedback support. It's a bit like car air-conditioning, once you have it, you can't go without it, and my MS Force Feedback Pro was left feeling quite naked.

AI is very smart, with enemy executing text-book manoeuvres, so you must watch your six. Damage modelling is also incredible. Parts of aircraft shear off, leaving spars and joints jutting out. If you are still flying, scan your aircraft and you will see flight surfaces ripped apart. Take a hit in the cockpit and don't be surprised to see your blood on the canopy! Bad day in the office stuff!

Great value, good fun and educational. This game's a hit with me. My son and I are putting in plenty of hours on the LAN!

Maj Ian Lindgren

Talk about damage modelling! The entire port spar of this P38 is missing!



Category Flight sim
Players 1-8 players by LAN (IPX/SPX) or Internet (TCP/IP), and Jane's Combat Net
Publisher Jane's
Price \$69:95
Rating G
Available Now

For The Mission Builder and ability to download missions gives this game plenty of flexibility with imaginative use. The best explosions and damage modelling I have seen. It's a real "take me back to the war" educational experience

Against No force feedback capability. A credibility problem in high realism flight models. Not much of a manual

Need P200 with 32 MB RAM
Want PII 300 with 64 MB RAM

3D SUPPORT
 D3D, 3Dfx and Glide

game. Already Jane's have additional missions at their web site for download. Using the Mission Builder you get to place Allied and German divisions on the ground, their commanders deploy them using game AI, so you randomly see ground targets. You then set targets, waypoints and user defined actions (triggers), such as flying past a waypoint, to generate multiple other actions such as incoming enemy flights or enemy movement on the ground. This puts WWII Fighters ahead of

MSCFS's add on mission builder, and well ahead of EAW because it doesn't have a mission builder.

WWII Fighters doesn't offer the beautiful photo-realistic terrain of MSCFS. In fact it is a disappointing feature of the game and is sparsely populated. However, at least the view doesn't deteriorate as you go lower, and when targets occur, they are identifiable, and move, and the explosive effects on the ground and in the air are fiery and thunderous, and just blow you away.

PLUS+



To further the historical theme of this game I recommend visiting <http://www.geocities.com/CapeCanaveral/Hangar/8217/fgun/fgun-in.html> where you can really dig deep into all the characteristics of most WWII aircraft.

FATAL ABYSS

Is it too corny to say that Fatal Abyss steps fatally into the abyss of mediocrity? No? Cool!

Fatal Abyss is a new 3D action game from Segasoft, closest in style to Descent and TIE Fighter. In these games, you pilot a vehicle and have true three-dimensional movement within the game area. The comparison should really stop there though. Fatal Abyss is mission based and involves completing objectives rather than finding the end of a level, so it is more like TIE Fighter only underwater. Apart from that, I wouldn't want to offend the developers and fans of those two classic titles by the comparison. There's something watery down here...

The 80's revisited

The story goes like this. Sometime in the future, mankind discovers a strange new energy source in the sea named Bacteria 241. Two rival companies wish to distribute the product unhindered so naturally war must ensue between them. As a pilot you can choose between Ecosystems (the goodies) and Proteus Tech (the baddies). So it's early corporate training for all you young merchant bankers out there and if greed isn't good you've no business in the water! Over 24 missions, you have to do all that's necessary to tear up the ocean floor unhindered, in the pursuit of wealth.

Academic weapons

Fatal Abyss resembles military combat games in that you have specific objectives to accomplish: protect this, destroy that, etc. You are briefed on each new mission that you take. Then you pick your vessel and you're away. In Fatal Abyss, the choices of vehicle for the fortune hunter are: Heavy AV, a slow, armoured attack "tank"; Scout RV the speedy, light ship; and Fast AV, the in-between. Depending on the requirements of the mission you choose your ship accordingly. Weapons are also selected but it all seems a bit academic, since you need to stock up for most missions and you can carry all available weapons anyway. A nice feature of the game is that you



are able to return to your base or certain remote docking bays while in a mission, to replenish your energy for shields and engines; and your weaponry. This allows you to flee an unsuccessful battle and return for a second chance. For each mission you have a certain amount of energy and weapons that can be exhausted, so you need to be smart with your resources. On paper it sounds good but there is little variety and game-play becomes too repetitive.

Crappy controls

The controls are well below par, when you consider the keyboard/mouse combinations of recent games. Control of your ship is difficult so lasers are practically useless, so torpedoes are your only bet. You cannot set a throttle speed, you must hold down a throttle key. There's a real lack of thought put into the control of the ship and its components. TIE Fighter, which is getting old now, gave you the opportunity to control your energy; prioritise shields, engines or weapons. It's unforgivable for a game made in 1998 to lack such obvious precedents. Overall it is not comfortable piloting the vehicles and this is a big problem with the game.

Multiplayer? Hmmmm

I would have thought Fatal Abyss multiplayer would be great fun but I can only imagine it would be a nightmare trying to set up and run. In fact, it doesn't run smoothly even with 3D acceleration - and for no apparent reason either. Besides, I can't imagine playing this game on a net-



Despite there being a couple of cool ideas, the execution leaves a lot to be desired



work if every five minutes you had to return to base and refuel! It's the little things that do it and there are many little things in this game that make it less than a good game.

Everything about Fatal Abyss is there but sadly, it's mediocre. There is nothing to pull this game above the masses of games that are around. While you might enjoy 24 levels of underwater dogfights, you won't be drawn back to it, even for multiplayer. It's not terrible, but it's certainly not good and with the standard of games around, Fatal Abyss should be well steered past.

John Dewhurst

PLUS+



54%

Category Underwater RTS hybrid
Players 1-16 (TCP/IP, IPX)
Publisher Segasoft
Price \$89.95
Rating G
Available Now

For An average game with some good ideas about resources in missions, soundtrack is quite cool, beautiful underwater bubbles!

Against Gameplay isn't gripping, controls are poor, serious lack of thought put into design of the game, it doesn't run well under Windows, only 24 missions, story is completely uninteresting, need I go on?

Need P166, 32 MB RAM, 4xCD, DOS

Want P200, Voodoo2

3D SUPPORT

D3D supported, Voodoo2 recommended

BUGGY

Another contestant in the cute, funny, console-y, power up racing genre, Buggy just isn't that cute. Or good.

Since this is a racing game in the vein of Micro Machines and the classic Mario Kart, cuteness is a quality that Gremlin would really want to ham up. In Buggy (and in most games of this kind), cuteness equals mass appeal. Sometimes though, in the quest for global cute-racing game domination, developers miss the mark. And Buggy isn't really that cute at all.

Handling differences

As mentioned, the console influence in this title is gloriously obvious. The idea is to race your little radio controlled car around a track a few times and be the first to cross the finish line. You can achieve this by either using the power-ups at your disposal, finding and using the many shortcuts along the way, or by simply using your natural driving ability. There are four cars to choose from at the beginning of the game, with more unlocked as you progress through the game. Each car has four categories with which it is judged - speed, acceleration, grip and weight. They each actually handle differently, so these are just not tacked-on features to give a false sense of complexity to the game.

Hooning in the hub

Once you've picked your little hoon mobile, the Diddy Kong Racing influence (a gem of a cutesy racer on the N64) becomes quite apparent. The races are all accessed from a central hub area. Most tracks won't be accessible till you've completed the earlier races. From this hub area (which is navigated by simply driving around), you can save your game, access tracks you've already completed (to find the secrets that you may have missed, or perhaps to beat a best time), and generally hoon about.

Buggy code?

And then you race. There are stacks of tracks to race on, with Gremlin attempting a different theme for each of them. You've



got your race along the beach, the track through a volcano, and the cityscape flavoured one. This is where you start to notice the cracks in the wall - the graphics aren't at all very pretty. Is it the tile based sky? Is it the rough foliage that adorns the side of the track? It is in fact many things, not least of all a rather bland (and at times, unnatural) choice of colours. Okay - so it doesn't look very pretty. So why the heck doesn't it run smoothly? On a P166 with a Diamond Monster 3D card, Buggy was dropping frames left, right and centre. Quake II it ain't, and a simple looking racer it is - you get the feeling that sloppy code is to blame for this one.

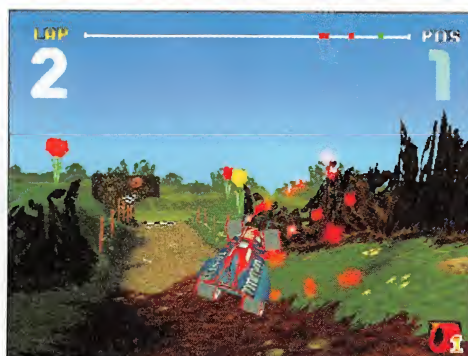
Redeeming features

In keeping to the console racing "power-up" feature, Buggy gives you six to play with. This includes the speed up, meanie mode (allows you to barge your racer through the pack), time stop (other racers freeze), mega grip, ghost (pass through some obstacles) and the copter (which allows you, of all things, to fly). Their integration into the game however, is rather unique. Each power up requires a specific string of coloured icons to work (for example - the speed up requires yellow,

followed by red). You can earn an icon by passing through a gate of the same colour. So to earn a certain powerup, you have to be careful to go through a certain sequence of gates. With gates scattered (sometimes) in no particular order around the course, you have an interesting way of fleshing out the racing experience.

This power-up earning feature is Buggy's saving grace. Otherwise, you're racing 3 other RC cars along some fairly averagely designed tracks with little thrill. Buggy plays very much like a substandard Mario Kart meets Micro Machines.

March Stepnik



Graphically it's not that impressive, but that wouldn't have mattered if the gameplay was up to scratch

PLUS+



<http://www.gremlin.co.uk/games/buggy/funky/index.html>
Go here for tips and secrets. You probably won't find this stuff anywhere else.

62%

Category Racing
Players 1-4 (IPX, TCP/IP)
Publisher Gremlin
Price \$89.95
Rating G
Available Now

For The RC cars fly about the track in a satisfactory manner (ie - kinda like the real thing).

Against Only three other competitors per race, messy graphics, NO ENGINE (or even battery) NOISE!!

Need Win 95, P166, 16MB RAM

Want P200, 64MB RAM, 180 MB HDD, 3D accelerator.

3D SUPPORT

Direct 3D supported

PINBALL SOCCER '98

Like a date with Ricky Martin, this is sure to satisfy. Ole Ole Ole!

Soccer, the universal word for skill, agility, teamwork...and if you happen to be from the UK, Violent Drunken Riots. It's THE Game. Sure, every now and then a new soccer game is released, calling for us to impersonate the greats like Owen, Maradona, and of course Pele. Every once in while, a game is released that's so involving that it may get the player to run around the house slapping hands, screaming "GOOAAAAALLLLL!!!!!!!" and possibly singing "Here we go, here we go, here we go!". Pinball Soccer '98 is one such game.

Shoot the Goalie

No, not for its realism, nor for the action replay. This game stands out for the best reason of all: FUN. We have all been blessed of late as the standard of pinball sims has increased. Gone are unresponsive flippers, the lack of tilt options and other nagging little quibbles that would more likely send us to spend the greater part of the day in the local arcade or pub, the latter with the lovely smell of ammonia and dried vomit as a constant reminder of where you are.

The tournament table is different to your average "Who Dun It" or "Junk Yard" arcade cousin. Basically, you are playing by soccer rules. A plain open table, largely devoid of ramps and large flashing arrows, resembles the soccer field. The metal pinball is replaced by the familiar hexagons of the soccer ball, and the soundtrack is that of air-horns and the cheer of the crowd. Your aim? Knock down the players in front of the goalie at the top of the table, then shoot the ball into the net for a goal.

Slap and tickle

Sounds simple, doesn't it? Straight ahead, hit the flippers, badda bing, badda boom? But what about the obstacles? If you're playing a little rough, the Referee comes onto the field. Hit the Ref with the ball, lose 1,000,000 points. At times players enter the field, blocking your

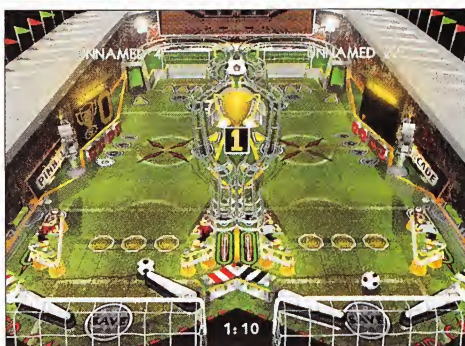


ball. By far the oddest obstacle is a giant Soccer ball that appears in the centre ring. Another obstacle is the actual ball - although the flippers are much more responsive, the direction of where the ball goes doesn't always agree with the usual movement of a table, making a direct hit up the centre of the table a hard manoeuvre to perfect. The grainy quality of the graphics can be a little distracting at times, especially in identifying traps and buttons at the far end of the table. The left and right slam keys almost make up for it, with a slam that can bring the ball up from the red card aisle (lose ball) if you can repeatedly hit it fast enough

To play a little on the more competitive side, choose the Head to Head table option. This splits the table in two, and allows two people to play each other in a

race for goals. You have an unlimited amount of balls, but the game is timed like a match with quarters and halves. Each ball your opponent loses is a goal for you, but each ball you lose is a goal for them - so get the spikes ready...

Agata Budinska



Oh look! The pinballs look like soccer balls. Wow, that's neat, innit!

72%

Category Pinball sim
Players 1-4 (same machine)
Publisher Metro Games
Price \$89.95
Rating G8+
Available Now

For It combines soccer rules on a pinball table. The timed game gives even the worst player a decent go.

Against At times the ball response to the flippers is unrealistic, making certain moves work against you.

Need P166, Win 9x, 16MB RAM

Want P233, 32MB RAM

ASTEROIDS

One of the original arcade classics makes a semi-triumphant return

Forget Space Invaders, Galaga and Galaxians. And you can keep your Pacman, Centipede and Qix as well. Robotron? Tempest? Defender? Nearly, but not quite. Mr Do? Missile Command? Gyruss? You've got to be kidding!



Icy loneliness

Nah, for me, Asteroids was always, and will forever, remain the quintessential arcade classic. Perhaps it was the compellingly simple gameplay - just you and some rocks. Maybe it was the lack of any needless restrictions placed upon your actions - you could go anywhere on screen, unlike other games. Conceivably it was the level-less challenge - the rocks came in waves, but they never allowed you a break to relax. Possibly it was the eerie white-on-black graphics - the icy loneliness of space has never been depicted so evocatively in a video game before or since. Probably it was the combination of all of the above. The task for Activision, then, is how to retain these factors while simultaneously updating the game for the late 1990s.

Stuck in the middle

I think they've chosen a fairly predictable route. Yet it's one that I think will leave everyone, nostalgic retro-gamers and newcomers alike, a little dissatisfied, if for quite different reasons. Unlike the superbly reinvented Battlezone, Activision have decided not to tamper too much with the origi-

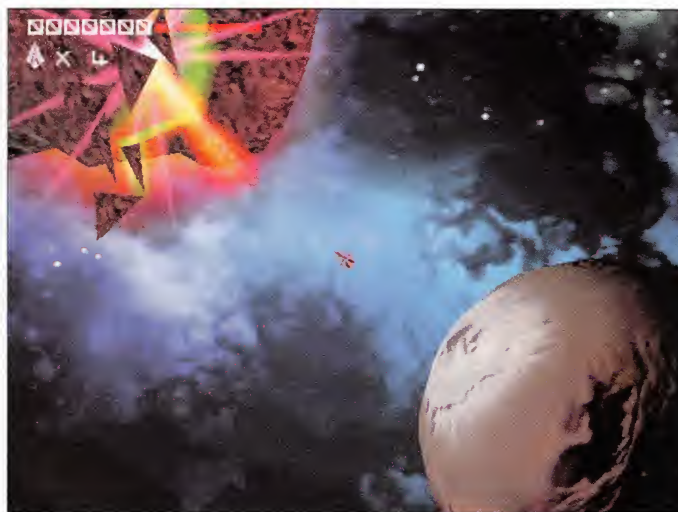
nal Asteroids game mechanics. Yes, you still have to clear the screen of flying rocks. Yes, the play area is still two-dimensional and only one screen in size. To this end, the result is not entirely dissimilar to what Jeff Minter did with Tempest 2000.

Updated prettiness

This is Asteroids with brilliantly vivid starfields, shimmering nebulae and incredibly pretty, translucent explosions. Your ship is blessed with a limited shield in addition to the tried-and-true hyperspace. You can collect power-ups to enhance your ship, including shield recharges, homing missiles, mines, a satellite helper, smart bombs, and ever more powerful lasers. The early levels (and the game is split into levels, fifteen of which combine to make a mission) mainly consist of the ubiquitous brown asteroids that fragment when shot. Later, though, there are shiny blue crystal asteroids that regenerate if you don't destroy them quickly enough, various bits of space debris, asteroids with orbital mining stations which explode massively, really horrible indestructible asteroids, and energy asteroids that absorb your laser fire and send it back at you when they are destroyed. And then there're also loads of enemy space ships that show up to hassle you when you're progressing too slowly.

Good, not great

So what does this all add to the Asteroids legacy? Well, it's undoubtedly an enjoyable game as far as it goes, but I'm kinda in two minds about how far that is. Half of me thinks Activision have departed too far from the original spirit of Asteroids, while the



other half reckons they haven't gone far enough. I think there really should have been one of two games made here, rather than the third hybrid option ultimately chosen. One, a faithful remake of the arcade original using the very cool new graphics - that is, no levels, no missions, no power-ups or weird asteroids or multiple enemies. Two, a Battlezone-style, completely throw out the blueprint, experiment - that is, make the missions meaningful and interesting, perhaps with objectives like in a proper space combat game. Better yet, both should have been included in the one package.

If Activision had been a little less reverent - and a little more, at the same time - this could have been a great game, instead of just a good one.

David Wildgoose

Relive those happy arcade days alone in your darkened room

74%

Category Retro action
Players 1-2
Publisher Activision
Price \$TBA
Rating G
Available Now

For Really quite beautiful graphics. The classic Asteroids gameplay remains only slightly diminished despite being buried beneath some often unnecessary gloss. In fact a conversion of the original B&W version is hidden in there somewhere.

Against If you never liked Asteroids, this won't convince you otherwise.

Need P90, 16MB RAM, 4xCD

Want P133, 32MB RAM, 3D card

3D SUPPORT

Direct 3D supported

PLUS+

Buy the Official Asteroids Strategy Guide from www.sybex.com. Yes, it really exists!



Big Race USA: PRO PINBALL

All that's missing is a milkshake, a Chiko roll, and some chewy, but apart from that it's the perfect pinball sim

Ahhh.. It's a great time to be a pinball enthusiast. There's stacks of pinball titles coming out for the PC and surprise surprise - they're all pretty good! Well, even that's being slightly nonchalant about it, as a couple of these have indeed been exceptional pinball simulation titles. Big Race USA happens to be one of them.

This is in fact a pinball sim of the "One table, all the trimmings" class, as opposed to the "Stacks of tables, a bit to be desired" one. Being consumers, it's easy to fall into the more is better mind set. In the case of recreating the wizardry that is the pinball experience though, quality is definitely more preferable than quantity. For most people that is.

The idea behind Pro-Pinball is to pack all the mind-numbing goodness of owning your own pinball machine onto one CD. To achieve this, Empire have given the user a staggering amount of options to help recreate the physical pinball savvy. The ball not moving fast enough? Increase the incline. The ball strutting about the table top with too much gusto? Turn on the "well worn" option. Want to test that the lights are working right? Run a diagnostic check. In fact, everything that you can set and fiddle with on a real pinball machine is featured in Big Race USA. Heck, they've even used an authentic way of changing these settings - via menus on the dot matrix display! Even the game manual has been set out in a similar way to a typical manual that accompanies a real machine. As a result of all this effort, it is possible to really fine tune your pinball experience, and more importantly - get really attached to the whole thing (something which has, surprisingly, happened to me).

The major consideration is just how well the game plays. The graphics are fantastic (no 3D acceleration here though), with the table design being bright and captivating. The detail is astounding. You get a true sense



of the ball's presence in Big Race USA - slam it hard and you can see it physically slide a short way before starting to spin again. Now and then too, you'll experience the ball spinning on the spot. The most impressive thing however, is the ability to really slam the ball around. Give it a generous enough slap and the ball will fly up, violently bounce off the "virtual" glass top and then resume play. In this way, Big Race USA feels just right. Big Race USA is perhaps the most authentic feeling pinball sim out there today.

As far as the machine's theme - it's easy to discount the appeal of yellow cabs and annoying American accents. This all comes down to taste. It's no Doctor Who or Star Wars, obviously. It is, however, a machine that places the theme secondary to the fervent action it throws at you. The table is well designed, and packed with sub-games. There is plenty to see, lots to do, and almost too much to master. It's easy to get into, yet challenging enough for the more experienced players - just the way it should be.

Sure, the whole Taxi Cab motif is more than a little dickey, but this is still the pinball sim to have

It's all here, minus of course, those few idiosyncrasies that you've either come to love or hate in the world of pinball (like gum in the coin slot, that peculiar and stale stench that hangs in the air and that unique cacophony of sound that is the result of too much sugar being consumed in a short space of time). The only reason they're not there is because Big Race USA: Pro-Pinball isn't about recreating the arcade experience - it's about having your own machine, and getting a heinously good time from it.

March Stepnik

PLUS+

GOLD 90%

Category	Pinball sim
Players	1-4 (Internet, LAN)
Publisher	Empire Interactive
Price	\$TBA
Rating	G
Available	Now
For	It feels like pinball. Static screen. Enough said.
Against	You'll need a beefy computer to run this with minimal fuss.
Need	P90, 16MB RAM
Want	PII-233, 64MB RAM, 600MB HDD (full install)
3D SUPPORT	
Software only	

SNOWWAVE AVALANCHE

Juicy-Looking Spanish Snowboarding game excites the mammacitas

*Get on the road, get back on the road,
We're headin' north where the air is so cold,
I wanna touch ya, I wanna feel the flesh,
Put on a tape, can't stand this emptiness.*

Aaah, yes. This young and stupid message brings back a few memories! These lyrics are from the soundtrack to SnowWave Avalanche, which is belted out by a giddy, enthusiastic high school-type band, obviously some local counterparts to the Spanish developers of the game. It's a kind of weird hard rock/pop fusion pulled off with bent American accents, with some surprisingly cool musical riffs in there.

Radical dude!

The music takes us with a flying start into a gorgeous rendition of fashionably dressed funksters whipping through alpine vistas, with beautifully formed shadows, solar flares, and a continuous flowing particle system of snowflakes. It looks awesome. The graphics are almost on par with some of the best console snowboarding games, where the real legacy resides (at the moment, anyway). This nice aesthetic ideal brings us five shredders to choose from (including two very nice snowboarder chicks), each with several carefully coordinated Snowboard/Outfit combinations. There's no actual 1998 clothes (or snowboards) to choose from, neither is there any choice in the kind of deck you use. There's also a slightly unfortunate orange deck, simply decorated with the capitalised word: "RADICAL" on it. A bit behind, folks in the Spanish scene!

Despite looking fantastic it doesn't have different times of day, or weather conditions to choose from, only the standard 'paradoxically bright day combined with light snowfall' option. You might have already guessed, but there are also no ice sections (or different snow, for that matter) modelled into it. You can

carve across a hard wooden bridge as though it were powder three metres thick. Hmm! Don't think so.

Cut'n the edge

Anyway it does look great, despite the lack of depth in the modelling. The controls are totally simple, with basic directions to steer, and an extra key to cut the edge in and make a sharper turn. This actually lets you pull 360's and change stance, or butterknife sideways to dump speed as you approach a barrier at 150k's. Pretty damn good system, really. It makes just fanging down the hill quite a bit of fun, and looking as good as it does, you'll be doing that quite a lot!

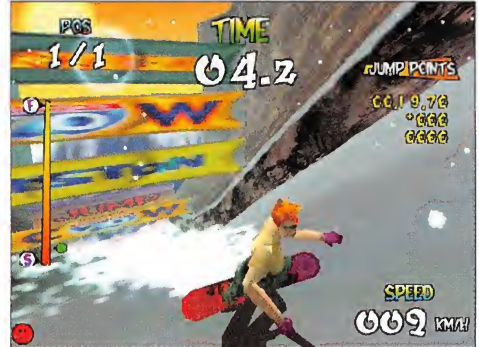
Protest flag

Unfortunately, SnowWave Avalanche really falls down in the Game modes department. You get the impression the developers watched the recent Olympics and based the game on that, adding some other touches "just for fun". Every single game mode available, apart from the 'jump' games has a mandatory slalom section. This really, really sucks. Having to slow down and pedantically cut between poncy little flags goes against every snowboarding instinct known to man. But hell, it was in the Olympics, so

it's the right thing to do! Not. Not only that, but every mode there is has 'check-points' you have to reach within a certain time frame, or you're kicked out of the race - a'la Outrun, circa 1987! This weird racing game thematic is quite out of place, basically just adding an annoying element.

Another confusing part is the absence of a half pipe, but we have two different kinds of big ski jump, which you do aerobic tricks off. The tricks in this game have never been done in the history of the sport, I'm sure. A little more homework here would have been nice.

It's probably the best PC snowboarding game so far, unfortunately it's not quite as good as the console greats. If by chance you own a Nintendo 64 and 1080 Snowboarding, leave this well alone.



Cuttin' schiiiiiiick maaate!



PLUS+

<http://www.gamesarena.com/snow/>

60%

Category	Snowboarding Sim
Players	1-8 over LAN, TCP/IP, IPX supported
Publisher	Midas
Price	\$79.95
Rating	G
Available	Now
For	Cool soundtrack, lush graphics, great sensation of speed
Against	Extremely limited selection of game modes, no escape from Olympic-style slalom(bool).
Need	P133, 16MB RAM, 3Dfx accelerator, Win 95/98, DirectX 5.0 or better.
Want	P166, 32MB RAM.
3D SUPPORT	
3Dfx accelerators supported.	

NEWMAN HAAS RACING

With games like this, it's easy to see why Formula 1 is the dominant species.

First it was Nigel Mansell, then the Andretti crew. Now every two bit ace driver and racing team wants their own game. Psygnosis have licensed Newman Haas for a brand new Indycar game, but unfortunately it does nothing to break the curse of substandard and just-average racing games that usually afflict licenses. Newman Haas plays like a half hearted attempt to emulate the 'heavyweights' such as CART Precision Racing and Indycar 2. However, Newman isn't actually all that bad and does possess some redeeming qualities, but the scale is sadly tipped in favour of its many shortcomings.

Physically unsound

The first thing that hit me about Newman Haas is, quite literally, the control. The car just does not feel right. I'm not sure if it was sloppy programming or just a deadline to meet, but when the car encounters resistance, i.e. going too fast into a corner, there pretty much isn't any. The dodgy feel of this game is Newman's fatal flaw, it is very hard to enjoy any game that doesn't respond to your control. Wheels do not spin in the opposite direction, the car does not slide out or even bite into wind resistance when turning. Psygnosis have basically decreed that in any sort of abnormal situation, your controls, bar the brake, will not respond until you brake 'appropriately'. I had



Simple non-threatening arcade fun

literally more control 'lawnmowing' across the grassy areas of a chicane than I when entered a corner at 4th gear, clocking down to third well before the turn started and watched my car careen towards the oncoming wall, wheels locked at almost 90 degrees, that is until I dropped to mid-second and all of a sudden the car began 'responding' again. The oversteer on spinouts is also ludicrous; I was able to floor it out of a sandtrap with little trouble, yet encountered more trouble comparatively trying to turn on an oval track!

Redemption

I did mention redeeming features now, didn't I? Well, I did find some neat options. Yes - options. The ability to customise the degree of brake and steering assist is more than welcome. In the past, drivers who wanted some assistance but didn't exactly want their hand held the entire race simply had to turn assistance off. Newman also offers more customisation levels than most games including stagger



(which sets the degree to which your car leans towards, handy for those ovals), and the ability to customise the frequency of crashes (great for the sadistic types) The manual is also brilliant in a subtle way, taking time to properly explain the racing terms to the average layman that other manuals normally assume and some areas of Newman's graphical detail is worth noting, realistic sparks fly out the back of the engine to indicate damage, and any particularly banged up tyres will fail to respond noticeably (it's quite fun to watch a left turn with a busted right-front tyre).

Land of averageness

However for all of its redeeming features, Newman is still stuck in average territory. Opponent AI is boring and rarely competitive, championship mode is little more than a string of single races with dull static screens in between. The graphics, while impressive in a 3D accelerated way are unimpressive for a "3D Accelerator is required" game. Graphics comprise of a bland mixture of gouraud shading and hi-res textures as if the

designers couldn't decide, and the whole package is put together with so little enthusiasm that it is hard to feel any yourself.

Newman is neither bad enough to crucify, nor good enough to recommend. Psygnosis have doomed this one to the bargain bin.

Munley Leong



110 PC PowerPlay

70%

Category	Racing
Players	1-???
Publisher	Psygnosis
Price	\$TBA
Rating	G
Available	Now

For	Fast frame rate, and above average detail.
Against	Crappy control, 3D accelerator required that is not really taken advantage of. General averageness
Need	P133, 16Mb RAM, D3D Accelerator
Want	P266

3D SUPPORT

D3D, Glide

PLUS+

http://www.psygnosis.com

RING

Life and games. In both one should be suspicious if something looks too good.

Ring must be a first. I am hard pressed to think of any game based on an opera, or even a musical (The Sound of Music FPS, now there's a game that needs making!). Cryo have outdone themselves in choosing Wagner's Ring Cycle as the basis of a game. It shows vision and imagination. Couple this with a super design ethic and you're well on the way to one healthy game. Sad to say it, but this baby's premature and we can only lament what might have been.

Looking good...

Ring begins convincingly enough. The solemn mood established in the opening cut scene is awesome! The artwork and design of the game are very, very classy. Instead of going for an ancient or Lord of the Rings style, the designers opted for a futuristic look, while trying to maintain the mythical feel. Consider Alberich's mine, which for the gamer looks like an industrial warehouse nightmare. Very cool. In fact, the blend of natural and futuristic scenes can be breathtaking. As I said this LOOKS like a winner.

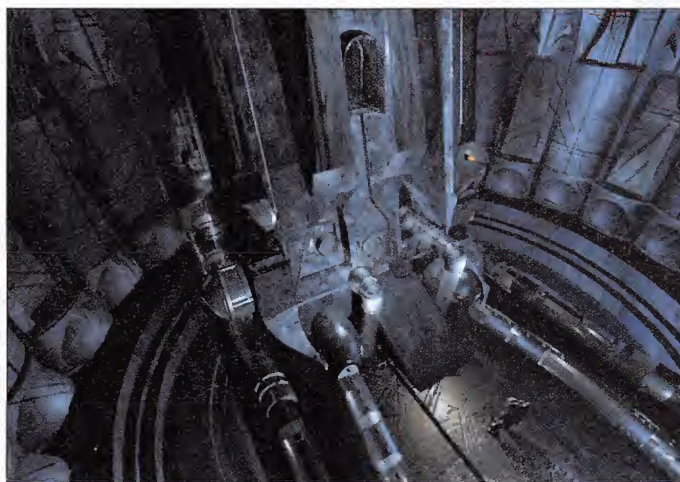
It all looks fantastic but as soon as one of the characters opens their mouth, you know something's wrong. This is a French game that has been translated for an English audience. Even so, you'd expect something better than the half-arsed effort that went into it. When you have two characters conversing, one sounding like Hamlet, the other like Baldrick from Black Adder, it really smacks of bad decisions. Even worse is our villain Alberich, sounding (and looking) like one of those crazy enemies from Mighty Morphin Power Rangers! Mood is pretty important in an adventure game and we're losing it fast.

Small talk

Conversation is a problem in Ring. You might be able to put up with the annoying accents but even more annoying is that the characters talk and talk and talk for next to no reason. Nothing in the conversation is

necessary to solve any of the game's puzzles. Combined with the fact that you have no input into what your character says and you come into a major stumbling block in this game.

There are four separate quests but the characters are pretty hemmed in. It would have been nice to move around in a larger game world. The result is that gameplay is almost totally linear in each individual character's quest. You can change between characters at any time, but so what? It ends up being a little claustrophobic in Ring.



Ill logic

Some of this could be forgiven, even enjoyed for its zaniness if you had a really outstanding adventure game. "Those fruity French guys!" you'd say. In the case of Ring, you might say something a little more crude. Ring is most like Myst and its many clones, but unlike (some of) these games it is not a great challenge. The biggest problem is that the tasks and puzzles are just not up to scratch. The point-and-click interface means it really is just a matter of finding items and places in the environment to use them on. Where other games give you the opportunity to combine inventory items or use them in various ways, this is not possible here. Ring puts all the things you need around the place and you just need to find them. While most puzzles are stupidly easy, others are impenetrable and quite illogi-



54%

Category Adventure
Players 1
Publisher Cryo
Price \$79.95
Rating G
Available Now

For Beautifully designed, an interesting story, and a great concept. The soundtrack of Wagner's music is a bonus, but is there a gamer who would really know?

Against Very unconvincing game, puzzles are either elementary or totally obscure. Too much talk, not enough gameplay. Drive this one to the woods and set it free...

Need P133 16MB RAM, Win95, 8xCD

Want P166 32MB RAM

cal. There isn't much to keep the adventure gamer around and this is Ring's big downfall.

First impressions of this game point to it being a winner, but it doesn't cross the line. Flaws in the most important part of any game, the gameplay, make it another hopeful but not a must have. A slap on the back to Cryo anyway because if they keep having concepts like these, sooner or later a great game should follow.

John Dewhurst

PLUS+

Introduction
 My idea is to collect and to buy all kinds of material relating with the German composer Richard Wagner (1813-1883). I have myself recorded a Wagner recital since 1957. I will now present some of the material collected during my years as a scholar.

www.utu.fi/~hansalmi/wagner.spml
 Look here for all things Wagner and opera

JAMES CAMERON'S TITANIC EXPLORER

Titanic - the largest ship of her time

Titanic - the highest grossing movie of all time

Titanic Explorer - the largest multimedia spinoff of our time

Developer: Fox Interactive

So you saw the movie at the cinema a half dozen times, then bought the Special Limited Edition Video Box Set (just in time for Christmas). Now you're looking for some

more romantic images of Leo and Kate in "never before seen, behind the scenes footage". Sorry, but you won't find it here. If the movie made you want to know more about the sinking, or if you find the power of the ocean consuming a liner your cup of tea, you may want to take a look.

This offering from Fox Interactive is more or less a slide show of ship blueprints, Marconi wireless transmissions and photography related to the liner. It flows in a timeline, a kind of desktop documentary that starts with the growing need of

trans Atlantic sailing of the 1870's through to the renewed interest of the "unsinkable ship" after its discovery on the ocean floor, and, of course, movie hype. The 3 disk compendium makes good use of eyewitness testimony and journal entries, all presented by the narrator. The file footage and blueprints make up a bulk of the imagery, with the blanks (ie. the actual sinking) being filled with James Cameron's "historically accurate" recreations that never made it to the big screen.

If the slide show is not enough, there's plenty of documentation to read, including the menu for first, second and third



class, and a complete list of passengers on board (minus stowaways). There's footage of James Cameron taking a dive to the wreckage, as well as journey trail of the liner marked with the 9 ice warnings Titanic received from other vessels via the Marconi Wireless System. It even has a blow by blow report of the sinking.

If you had no difficulties in watching 3 hours of film at the cinema, you should have no difficulties getting through this 3 disk documentary in one sitting.

Agata Budinska



ROBERT D BALLARD TITANIC: CHALLENGE OF DISCOVERY

Got that sinking feeling?

Developer: Panasonic

Titanic, it seems, is at the top of the "we'd like to milk this baby dry in time for Christmas" list, with even 7up releasing limited edition Titanic packaging. With all this new merchandise, collectables and special edition packages, the words "Historically Accurate" are being labelled on almost anything wanting to sell. R. D.

Ballard's Titanic: Challenge of Discovery has no pretences to the film, but seems to be aimed at serious enthusiasts and fun seekers wanting to know more about the sea giant. So who is Robert D. Ballard? He's the man accredited to finding the RMS Titanic, the WWII German Battleship Bismark, and a 4th Century Roman merchant vessel Isis. This game recreates these three discoveries on the ocean

floor, allowing you to explore the wreckage. Yes folks, this is an underwater exploration sim. So, when do we see the Titanic? Not so soon buddy. The actual underwater exploration of the Titanic is the last of the missions, with the first dive finding the Isis, then the Bismark. In order to do this you have to choose a crew, and of course the right equipment for the job at hand. Doesn't sound too bad? What about your tight-arsed starting budget, and your lack of experience points? How do you go on archaeological dives when you don't know exactly what you're looking for? Isn't it handy that there is a library to go and do some research?

As mentioned before, you have to select crew and equipment, but before you can initiate the dive, you must research what you are looking for and talk to

others about the dive. Most importantly, you must make a cruise plan that will see the mission complete within the set time limit. But be careful, the weather's got to be on your side. You've got to get it all right or the mission will fail. Each dive has mission objectives, which if followed, earn you points towards becoming a respected explorer, then, you can explore the Titanic as she rests on the ocean floor.

Agata Budinska



HOYLE'S CASINO

Well, what's the point then?

Developer: Sierra

What could be more fun than getting blind drunk, heading to Star City and losing a week's pay at Blackjack? Being completely sober, playing Hoyle's Casino without losing any money, that's what!

Yes, that's right, the master of computer cards is back, this time in the "fun" and "exciting" setting of Hoyle's Casino. Play Keno, the Slots, Roulette, Pai Gow Poker, Blackjack, Poker, Craps and Video poker. Choose to explore the premises on your own, or play with Hoyle's animated guests. There's "I'm supposed to be winning here" Elaine, "how am I supposed to play with these hands"



Rebecca, and who can forget "I'll show you mine if you show me yours, and that's an offer I won't be repeating" Anna?

When playing the game without the frills (animation and witty repertoire) it moves quite smoothly, and if you enjoy a fast round of blackjack or poker then it's highly recommended. You don't get the running commentary or get to watch the roulette spin, but turns come quicker, hands are

dealt faster, and the addiction sets in.

Yes, Hoyle's Casino is, all in all, a game designed to keep you up at 3am when you have an essay or presentation the next day that you are quite unprepared for. With so many



games to master, a starting kitty of \$5,000, and those "characters" to play, work will take a back seat, as will your mental capacity for memory, as you try to find the slot with the highest return.

Agata Budinska



SIERRA'S COMPLETE CHESS

It's a chess game, game

Developer: Sierra

Have you ever watched "Fresh" and wanted to be Samuel L. Jackson? Ever wanted to watch a bishop knock off a Queen? Have you ever felt that no human will ever be able to check your king? Well, if you said yes to any of these, chances are Sierra's Complete Chess could have something in it for you.

If you said yes to the first, you might be thinking to yourself "but chess is a game designed so that people with no social skills can get an ego boost". Well, under certain circumstances you may be right, but with Funky International Chess Master Maurice Ashely showing you the ropes, you'll be rambling about your algebraic geography in no time.

This takes on a new set of 'lowbrow' characteristics to hook in potential players on the begin-

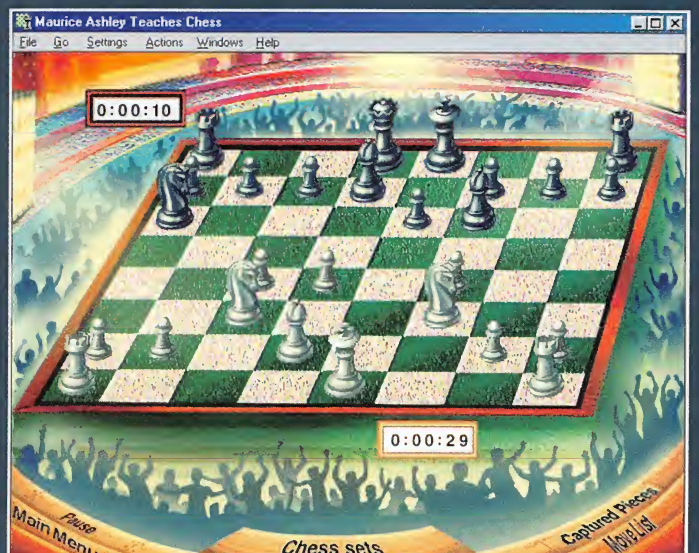
ner level. The board takes on the appearance of an American football field, complete with crowd and cheering. The sound effects are those of helmets crunching, feet running, and whistles blowing. And nothing can top that special moment of Checkmate with the umpire's call of "Touchdown!!!!". Choose the championship training mode to have Champion Maurice Ashely intro all the pieces on the back of a clipboard, and get to know them with challenges like Knight Wolf, and Pawn Touchdown.

If all this seems a little weak, and you answered yes to watching bishops taking out queens, then the intermediate level, Power Chess, may be for you. It plays like a 3D board, with the computer opponent adjusting to your level of play. It doesn't have any of the swanky additions that beginner offers, but it's aimed for a more chess competent crowd.

If you answered yes to the lack of humans around who truly understand Kasparov's genius, then the Extreme Chess is probably for you. This is just pure chess, no frills, no colour, no sound. A 2D flat

screen that reads more like a spreadsheet than relaxed pastime. Yes, Sierra Complete Chess is just that: Complete. It's sure to have something for everyone.

Agata Budinska



HALF-LIFE PLAYGUIDE



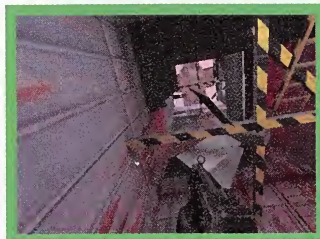
Continuing on from last month, we're taking you on a journey through Half-Life to get you past all the hard bits. Once you've been playing the game for a while you'll begin to realise just how huge the game world is - it would just about take the whole magazine to fill you in on each and every detail of all the levels. So, what we've done is taken you through each level in fairly general terms. Most times the path forward will be apparent, and keep in mind that the paths and options we list here aren't necessarily the only ways to get through that section, so feel free to experiment and divert from the paths and methods here if you want to. Some standards have been applied that you need to take note of, firstly that when we say that you 'continue onwards' we just mean to take the forward path. On most occasions, there will only be one way forward, which you should be easily able to find yourself. Also, we've taken for granted that you're going to smash every crate with a crowbar, because there's plenty of ammo, health, and HEV powerups to be found. Just stay away from the explosive crates (helpfully marked 'explosive').

"We've got Hostiles"

Generally, during this section you will encounter a few scientists who will be running away, and often running straight into danger. You can hurry after them if you want to try and save them, but in most cases you'll just be running smack bang into

a world of hurt. Let them run off like the girly wimps they are, because they serve as a great distraction to the enemy and an early warning system for what's up ahead. On with the playguide then! Overall, the objective here is to open the silo doors that are in front of you. Begin by ignoring the scientist that runs away and load up on health and HEV. Head around the corner, run through the red trip laser and crouch behind the crates. Snipe the sentry gun, and then pick up the MP5 from the dead Marine. As you move forward you'll encounter an alien spawn point. There's no need to stay and kill the face huggers, and you can just continue on, jumping over and then ducking under the green trip mines. Continue onwards and take out the slaves and pick up the ammo from that room. Continue onwards and take out the sentry gun before you trip the red laser - there is also a second one behind the crates in front of you. Beware the slave that will spawn behind you after you trip the wire though.

Jump to the top of the crates, and run past the sentry guns. Aliens will spawn behind you, but the sentries will take care of them. Beware the slippery surface here, and cautiously take out the sentries before the lasers are tripped. Continue onwards, and don't waste your ammo trying to shoot the suited guy - he can't be hurt. Climb the ladder, move along the platform and say hello to your first live Marine.



Then kill him. Grab health, grab the ammo behind you, and head into the lift.

Here's where it gets down and dirty. The marines generally move in groups of three, with

one leader. They will coordinate their attacks, try to flank you, and really require you to think about your methods of attack. Generally, don't be afraid to move backwards, taking them out one by one, as you'll live a lot

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longer this way.

Take out the initial three Marines, then head up the stairs after using the Health and HEV replenishers, and always pick up ammo from dead soldiers - you'll need it. Dodge the barnacles, then stand back and shoot the mines from a distance to blow them up. Take the corridor away from the sentries, jump onto the conveyor belts to get to the marine behind the sandbags. Take him out, then snipe the sentry guns below you. Jump down and shoot the trip mine and then quickly run under the lowering fire door. Let the scientists run in front of you as cover and take out the marines in the next room, as well as the barnacle above the stairs. Continue upwards past the first exit around to the health and HEV, then go back to the passage and continue down it. Avoid the barnacles on the platform, then take out the marines on the ground in the next room and continue all the way down the platform. Find the lift at the opposite end of the room and exit through there. You've made it outside!

Take out the three Marines in front of you as quickly as possible. If you run outside, keep moving, or the helicopters missiles will kill you. Run down into the bunker and head down the ladder. Continue along, load up on health and HEV, then open the door. Stand back for the explosion, then quickly move downwards, jumping onto platforms and taking out marines when necessary. When you're on the rung just above the fan, head into the vent and follow it along.



Carefully fall down onto the ledge in the next fan room, and enter the first ventilation shaft. There's ammo to be picked up and conversations to overhear here, but no exit. You need to climb down the ladder in the second fan room, which is quite difficult. Save here. Crouch and enter the ventilation shaft and move along. Go up the ladder and take the first ventilation shaft you come to (the higher shaft is a dead end). Open the silo door and head out.

Continue along, and hack your way through the boxes with a crowbar. There are face huggers prowling around here, and a Bullsquid at the far end. Take that out with the MP5 from a distance. Head up to the room, but before you can hit the switch a zombie will come out from the door to your right. Take that out, then grab the ammo. Hit the switch and jump down onto the platform. Go down, and hop on the train. 'Use' it to go forward, and press forward and back to change speed and direction. You'll run over a few beasties, but try and take a couple out while you're travelling along too. Jump off the train or stop it before it reaches the stopper, or you'll be catapulted into the radioactive waste. Jump up on to the stop-



per, and then across to the right hand ledge. Carefully move along around the corner and continue along, taking out the Bullsquid along the way.

Climb up the ladder where the Bullsquid is, and then down into the hole in the pipe. Continue along and jump out of the next hole. Climb along the top of the pipe and jump onto the passageway, taking out the Bullsquids along the way. The next large open area has two Bullsquids on opposite sides. Take them out before you climb along the pipe to get to the middle platform.

The next open area has a

Bullsquid hiding around the corner to your right, next to explosive barrels. Houndeyes will also come running, take them out with the shotty when up close. Go right, and take out the Dog on the bridge. Jump over the gap (if you shot the barrels) and enter the Silo. Continue on, listen to the dying scientist, and enter the control room. Don't bother trying to rescue the scientist, or shoot the claws. It can't be done. continue onwards, and watch the guards commit suicide. Get the ammo and drop down two rungs, avoiding the claws where possible. Bash through the wood blocking the door, and head right. Continue along until you get to a hole in



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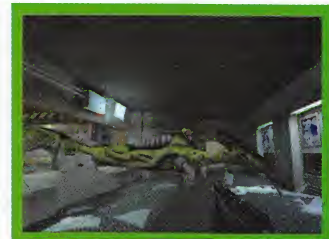
the floor with a ladder. There are zombies below, which can be taken out with a grenade from above. Drop down the hole to the pipe, and head along it. Turn right and then up the ladder. Continue along, head down the ladders until you reach the bottom of the room with the large fan. **SAVE HERE.** Hit the switch, then quickly move back up the ladder, timing your run so that you evade the blades (good luck!). Jump into the space above the fan and the wind will push you up to the roof, which can be bashed through. Open the vent and continue along and bash through the next boarded up section. Enter the vents, and kill the zombies in the next room. Then turn on the switches for fuel and oxygen, and exit via the ladder and then door to the right of the switches. Go back to the silo, and down to the next level in the room with the claws. Bash through the door, jump across the holes in the floor and head out the door. Continue along, taking out the Houndeyes and Barnacles along the way. Head down the lift - but it will break about halfway down. Jump onto the ladder on the side before it falls (you don't have long!) and go down. Continue along, and use the transporter to move to the other side of the open area. Go up one level, taking care to avoid the rotating platform. Climb up to the top, and hit the switches on either side (ignore the scientist) to activate the power. Head back, climb up the ladder in the lift area, and jump across to the ledge, then into the room with the crates in it. Push

or pull ('use') the crates and leave them in the now electrified water. One or two crates is enough, but you can push them all in if you want. Jump across and go back to the silo. Head back to the control room, and press the 'test Fire' button. Watch the pretty death scene (but not too close, or you'll take damage). Then move down into the hole.

Fall into the water, jump out and grab the magnum from the Guard and the ammo, then swim down to the two holes. Move to the side and out of the water. Climb down the ladder, grab Health and HEV, and then back up and along the pipes, very carefully. Turn the lever, fall down into the hole in the pipe, and then continue along. You'll eventually fall down into a room and squish a table. Grab what you can, and continue along the passage.

Power Up

Avoid the large alien! He'll



hurt you a lot. While the marines are being suicidal fools, run past and into the passage on the left, then take the left junction. A ledge here will fall down and face huggers will attack along with the slaves, so be careful. Follow the passage that's now available where the floor fell in. When you see the room with the slaves and the canisters, stay back. The slaves will self destruct and make a large explosion. Once that's cleared, turn the lever and enter the next room. Move up the ladders, taking out the marines as you go along. Continue along, but stop when you see a cache of explosive crates on a corner. Just past here is a very hard area. Save here. There are many

marines to cope with, coming at you from either side of the room above the sandbags. Make liberal use of grenades and fall back to lure small groups of marines forward. When the area is clear, hit the switch for the power generator but **DO NOT** go down. Drop a grenade down the hole to set off the trip mines before you go down, then head down yourself. Continue along, and take the right passage at the large red coloured room. Follow the circular stairs all the way down to the water, enter and shoot the crates blocking the pump. Then head up the stairs and into the room with the power generator controls. Turn on the second generator, and head back up to the open area with the big

When you re-acquaint yourself with the large alien, run way up the semi-circular passage to the room with the power cones. Make sure he is following you, then run past the cones and up to the switch. Hit the switch and watch the big baddie die a horrible death. Use the side exit to avoid the electricity, and head back to the room with the train in it, and move it to the circular turn around plat-



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form. Then go back up to the control room (left passage, turn left, then through the barricaded door) and hit the switch to turn it around. Jump back on the train and head along.

On the rails

You'll break through the boxes and meet a guard who has important information to impart. Listen to him and then continue on after hitting the switch to open the barricade. You can take out the barricades, but you shouldn't run into them. Jump back on the train and head down, then continue along in the train through the water. At a couple of points exposed electrical wires will confront you, just duck to avoid them. At the point where you see the crane lift, stop the train and take out the aliens nearby. Then continue walking along the passage (avoiding the electrified middle line), and jump on to the first platform you see. Jump into the water, then go up the ladder and take out the Bullsquid. Head up the stairs and take out the crate and sentry gun that is behind it. Hit the switch to move the crane out of the way. Jump back down to the train and manoeuvre it so that it's behind the signal. Shoot the signal once so that it rotates, and then move the train forward. It will now follow the track into the now vacant passage.

As you follow the path along in the train, eventually you will come to a round platform that will raise into the air when the train reaches it. Do not enter this - there are many Marines waiting above. Instead, jump off the train before you reach it (leave the train moving forward) and use it for cover as it rises. Climb up the ladder and take out the first Marine, then continue up the second ladder and take out the second Marine waiting to your right (he will grenade you, so be wary). Before you hop back on the train, continue a little way around the corner to where all the noise is. Don't get involved in the fight immediately - let the slaves and Marines fight it out for a while. You can take control of the floor mounted machine gun behind the marines if you want, but they are very hard to control, and you will be a static target, so it's probably not a good idea. Once you have cleaned up the remnants of the battle, head up the stairs where the electric beasts were. After the face huggers and slaves, you'll come around a corner where two Marines are sitting there just aching for a grenade to be tossed their way...

You'll now be directly above the train, so drop down on to it, and continue along. Move the train along to where the big gun is, and head up the stairs there. There's Marines waiting at the top and slaves around the corner so be wary. Enter the side store room and scavenge everything you can, then continue along. Once you find the stairs that double back downwards, you'll encounter some more Marines fighting slaves. Be cautious and pick them off from a safe distance while they're both occupied. Once done, turn left at the foot of the stairs and shoot the trip mines from a safe distance then continue along. Hit the switch to open the gate and head

down the passage. A short while afterwards you will encounter a group of Marines lying in wait, who can be quite easily taken out with a grenade. Continue along and crowbar the barricaded door. 'Use' the guard and continue along. As you come around the corner with large crates you'll meet a very large, very nasty gun. It's easiest to ignore it and just run past, but you can grenade into the bunker to stop it (this is quite difficult though). It's best to stay out the way of the gun and walk up to the blast doors which will open automatically for you. Move backwards (still out of range of the gun) and shoot the trip mines before proceeding. There are Marines below you on a lower platform. You can shoot through the platform you're on, but they can also shoot up at you, so take them out as quickly as possible. Head out through the next blast doors, but don't immediately use the train. Continue along on foot, and take out the sentry guns and Bullsquids from a safe distance.



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The door near the last sentry gun isn't really worth entering, so just ignore it.

You can return to get the train now if you want, but it's just as easy to continue on foot. Either way, soon you will encounter a grunt firing rockets at you. These hurt heaps, but can only fire at one height, so if you duck you won't be hit. Crawl up to the soldier and give him a faceful of buckshot. Continue along taking out the trip mines along the way with your handgun from a safe distance. At the next junction there is a group of slaves waiting for you - kill them all. There is a barricaded and trip mined passage here. Toss a grenade over to get rid of the mines, then jump/duck to get over the barricade and head up the stairs. There are Marines about here, guarding the switch.

Once they've been dealt with, hit the switch and get back on the train and continue along. Before you get to the next stop, stop the train and get off. Across to the right is a very messy area with another big gun shooting at you as well as Marines. Stay out of the way of the gun emplacement (don't use the second gun to fight with) and take out the Marines from a distance. Once they have been dealt with, run to a point underneath the big gun where it can't hit you. Back off just a little bit and toss a grenade in there (listen to the cry of "Mediiiiic!". Very satisfying!). Move up the ladder and around to where the gun emplacement is and hit the switch to open the barricade. Grab the train and continue along. Stop at the next platform turnabout place and move across to the lift. There is a cache of explosives at the top, so



don't get on the lift just yet. Drop a satchel charge in the lift, then send it upwards. Detonate the charge when the lift gets to the top, and fall down into the lift recess. Grab the satchel charge there and climb back out. Call the lift down and hop in it to go upwards. Continue along, and take the ladder down first, take out the waiting Marine, and then go back up to the top of the ladder. Move along the tunnel, ducking to avoid the electricity and destroy the mines from a safe distance with your handgun. You can go back and get the train now if you want, but there's no real need.

Continue along until you see the boxes moving about. Move past, taking care not to get squished by the boxes and shoot the crates ahead to your right, which contain two grunts (what are they doing in there?!). Pull the lever behind the grunts to raise the gate and continue along. Around the next corner you will see another rocket launcher firing at you. Duck to avoid the rockets and kill the grunt when you get close enough. Continue along, hit the next switch, and move along to the end of the track. Head down the ladder to your right, but beware the mines below.

Dropping a grenade works well here. As you move down though, you'll be confronted with 4 sentry guns. Take them out as quickly as possible before hitting the trip wires - and if you run into the room in front of you there are two zombies in there, so be wary. Continue down the passage on foot, but be very cautious. Around a left corner you will come across another ambush point. Duck behind the crates, shooting the closest one to you. Crawl forward, from here you can take out the gun emplacement with a well placed shot. Move to the passageway on the right (taking out the Marines). You've made it outside again! Well done!

But there's Marines waiting for you! Or more specifically, waiting for you to lob a MP5 grenade their way. Once they have been dealt with, beware the sniper high up in the open area to the left, but you're heading for the right passage. Hit the switches to open the blast doors and continue along. SAVE - this bit is quite difficult. When you come to the stairs with the trip wires and explosives along the wall, drag the large and small crates together at the foot of the stairs and use them to jump up on to the ledge on the left. Continue

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right instead, and swim up to the two Bullsquids. Take them out, and head behind to the right to get to the ladder. Go up, turn on the switch to set the crushers in motion. Yes, it's time to begin the first descent to Tomb Raider country. Time your jumps so that you make it across to the other landing without getting squashed.

Follow the path along until you meet a science officer, who



along into the room, taking out the waiting Marines (a grenade in an enclosed area works oh so well...). You will see a launch button here. Pressing this will, funnily enough, launch the rocket. Fire in the hole!

Go back to the launch area and head backwards. You will see that a new door has opened in the area that you first came outside in. Jump in the red train thingy and head on to the next section.

Apprehension

Ride the train thing full speed along, and duck to avoid the grunts and let yourself fall into the water. Swim out and up for air, then go back down and 'use' the lock on the crates to release them (it will take a few seconds). Climb up upon the barrels and jump across to the landing in a red coloured corridor. Head up the stairs and jump into a second pool. Dive down and head into the corridor. Go past the door (it's



a red herring), and surface just past a narrow opening. Take the left corridor and enter a room with a pool and a shark cage above it. Go up the ladder and continue along until you meet a Scientist. He'll tell you about the shark in the water and the tranquilliser crossbow. Save here, as this is difficult. Walk onto the ledge, drop into the cage and grab the crossbow. The cage will fall into the water, and you will need five shots to stop the shark, so don't miss. And you'll only have a limited time until you run out of breath. Once done, turn the valve next to the gate and continue along. When you find the room full of barnacles, continue along and go down to the slippery landing. Carefully jump your way around (the landing will fall at one point and a slave will appear. Get out of the water quickly if you fall in, as another shark is in there. When you come to the fence, don't try and jump through the hole with the exposed wire. Jump through the hole to the

will tell you about the freezer chamber. When you're ready to enter, save first as there are many monsters in the room, and you want to get out as quickly as possible. Use the MP5 to take out any in your way, and don't be afraid to use grenades either. Go down the ladder at the end, and down a second ladder to another passageway. Head to the lift and into a new area.

Save here - this is another difficult bit (but very, very good). If you haven't got the lights turned low in your room and the sound turned up high do so now, this bit is great. Have a chat with the guard, who will mysteriously die on you. Listen to the hurrying footsteps around you and wander around VERY cautiously. There's a group of female assassins who move very quickly, jump very acrobatically, and shoot very accurately. Keep moving, and shoot them whenever you get the chance. When you've killed them all, head up the ramp to the top, and turn the lever at the end of the platform. Head through one of the two doors that this opens, and follow along until you mysteriously black out.

You'll awaken in a trash compactor which will begin to close on you (sound familiar?). Head up to the crate at the far end and jump/crouch to get to the ledge on top. Crawl across the walls of the compactor, get the crowbar and drop down to the grate below. Well done Luke!

Residue Processing

You'll begin in some water after dropping from the pipe. Head right and continue onwards to the silo with the ladder on it. Turn the valve, then go up the ladder as quickly as possible and then drop into the silo. Follow the shaft to the grate, and bash into the room with the guard. Follow him along to see



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him eaten by a barnacle, grab his gun (waste not want not...), and then go back to the first room. Jump over the onto the other side of the vat, and follow the passage along. Enter part two of the Tomb Raider theme. Bah! Anyway, jump across the moving platforms to the opening on the other side, and continue along. Take the conveyer belt along until you fall into water. Swim down into the next room, and follow the passage to the left. Swim under the roller, and continue along until you find the room with the pistons which you just have to time your run through. This conveyor belt will lead to a room with lots of conveyors going into chutes. Drop down to the conveyor below, then down again on another, and then down again as you come across them. You will eventually see two belts, drop down and move against the way they're moving. Shoot the trip mine from a safe distance, and enter into the passage, there's also another trip mine around a corner which you will need to destroy. Continue along to the room with more rollers; you'll have to jump from belt to belt to avoid them. At the end of the conveyor belt, drop into the room below and time your jump so that you don't get crushed. Continue along to the room with radioactive waste, jump onto the landing on the sides and go to the ladder. Well done, Lara!

Questionable Ethics

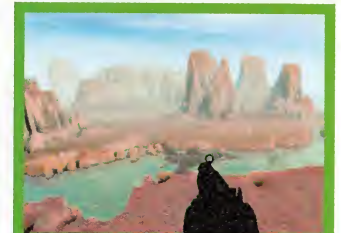
Bash the grille to get through the top of the ladder, and kill the houndeyes waiting for you. Shoot the top of the middle post on the fence to open the gate on the left. Continue on until you face an alien grunt - good luck. Break the glass (it's an emergency!) over the button and press it, then go through the door. In the corner room in the next section, hit the switch to watch a pretty show, then the door will open again and you can leave. Kill the Marine and take his weapon. From here on in, it's almost always a good idea to take the guards with you for backup (and as cannon fodder).



Take the guard you'll meet along with you and when you enter the large room continue along to the opposite passageway and continue onwards until you reach the stairs that lead to a lab. Go inside and press the button to release the headcrabs. Kill them all and run into the small room in the corner, hit the switch and fry the facehuggers. You will have to finish off one or two though. Get the crossbow and the snarks then continue onwards. At the T junction turn right to the large computer room. Take out all the aliens and Marines that will come for you. Then take the exit on the same wall as the door you entered through and follow it along until you see a door on the left with some moving machinery in it.

Continue along, taking the first opening on your right. Hit the button to turn on a laser beam - the aim is to turn on four lasers in total in different rooms. Exit the room and head to the next corridor on the left. Listen for a little while, then stand back for the explosion. Enter the room to get the Tau Cannon (use the ammo sparingly, there isn't much of it). Hit the switch to turn on the laser, then exit the room. Take the next opening on the right and follow it down, taking the left passage. Enter the room and turn on the third laser. Go back to where you took the left passage, and go the other way, turning on the last laser in the room at the end. Head back

up to the room where all the laser beams in the roof co-incide. You'll see a machine. Use the crate to block the laser shield from going down (it will only sit on the edge of where the shield is located). Hit the button to fire the laser and then jump through the hole that's blasted in the wall, using the pipes to get to ground level. Go through the door to the room with the spin-



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ning machinery, and chat to the scientists. Don't use them just yet. Time your run through the machinery so that you don't get hurt, and stop them spinning so that the scientists have a clear path through. Open the door and go to the corridor with the face huggers, making sure they are all dead, and check the main lobby to make sure there are no enemies nearby. Once the path is cleared to the retinal scanners

in the main large room, go back and retrieve a scientist or two and bring them along to the scanner. You've made it outside for the third time. Well done! There's still a bit of work to do though, with Marines outside and two sentry guns on top of the building you're exiting. Take them out, then go to the driveway and exit. Section cleared!

Surface tension

This section is quite difficult, so be sure to save often. Through the door you'll see some sandbags, explosives and Marines. Kill em! Continue along to the dam, where a helicopter will attack you, as well as a cannon across the other side of the dam. Hide until the chopper is flying away from you, then run to the gap in the fence on the right of the road across the dam and jump in the water. There's a shark that will come for you, so have your bow ready, and a prayer or two might help as well. Don't mess with the valves just yet. Instead, climb the ladder to

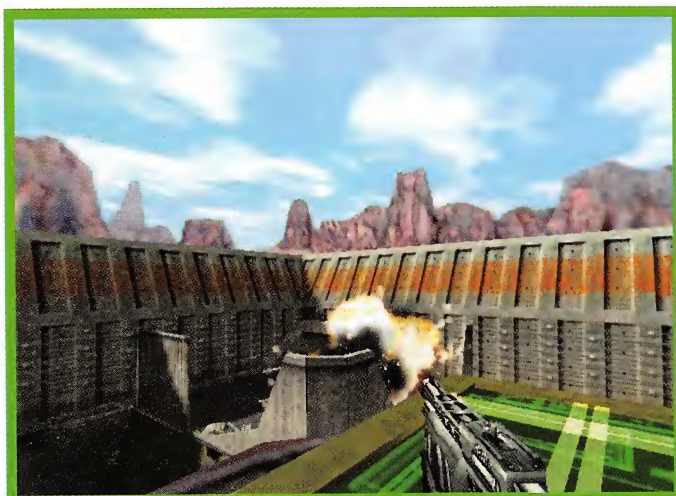


the silo and hit the switch inside the building. Jump back into the water and pull the valves to open the grilles. Enter the left-hand grille and swim through to the surface for air. Continue along until you see a ladder, climb up, and into the pipe. Continue along, taking the path to the right, then climb up the ladder, and go along the edge to the next ladder, and up again. Stay close to the left side of the sandy area, and take the second exit to the clearing. There's a group of Marines in wait here behind some rocks. Show them you care, and give them a nice grenade to play with. Enter the building and turn the valve for the storm water drain. Exit and head to the right, until you see the sign for the storm water drain (helpful, eh?). Follow the path, watching out for the chopper, as well as a couple of surprises in the sand. Once you reach the fence in front of the drain, drop a grenade in front of the area to detonate the mines, then use the rocks to get to a position to jump in to the drain.

Most definitely save here, as this is very difficult. You'll reach a precipice, with a sentry gun and a grunt down to your right. Take them out now, then go to the right and drop down to the ledge below, and do the same thing again. Move to the right until you come to the top of the pipe, jump in and slide down then move right until you find a cave. Load up on ammo and the RPG. A helicopter will approach, which can be taken out with a few shots from the RPG (keep the target on the heli until the

rocket strikes). Climb up the ledges and ladders up the cliff face (save, save, and then save again) until you reach the pipe. Enter, and then take the left junction (save again) and then up the ladder. This area is quite difficult, just take your time and make good use of cover. There's plenty of ammo around the far end of the area, and the object is to pull the lever in the small room near the tank. You can climb up on the tank and repeatedly smash it with a crowbar (wait for a different sound - the sweet spot) then jump off and pump a couple of rounds into it to destroy it, if you want to really embarrass them, but there's no need. Continue along until you meet the second tank, again you don't really have to destroy it, and you can just run past the sandbags to get away (the crowbar method is fun though). Go through the roller door to the next section.

You'll see an alien ship drop off some workers as fodder for you. Walk around to the right of the building and take out the bunker above with a grenade or two (or even a Tau Cannon shot - it blows through brick). Continue around, destroying the mines and crawl under the electrified wire. Blow up the generators from a safe distance to turn the power off and climb up the broken pylon to the top of the building. Drop down the hole into the room with crates and then move into the corridor. Use the crate to jump the trip mine and the handrail on the staircase to avoid the second. Take the left door and climb up on to the



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1280 x 1024	88
1600 x 1200	75

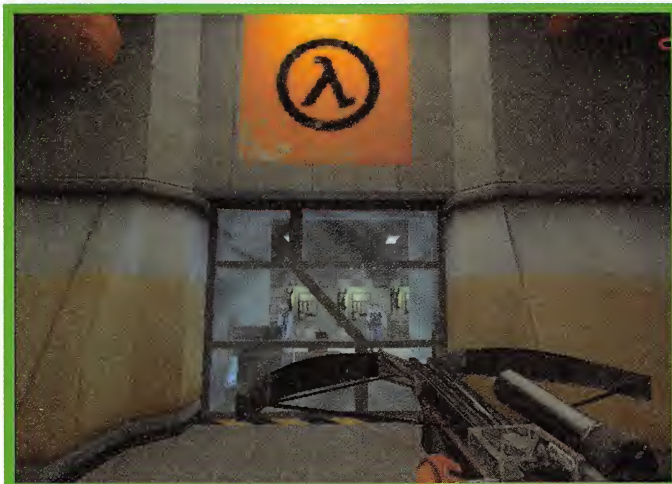
*The table above lists the maximum which the S110 will operate for several standard resolutions. Note that not all video cards are capable of operating at the S110's higher refresh rates.

HALF-LIFE

crate on the window, and drop down. All the trip mines in this area are linked. Set one off and the rest will go too. Do not shoot any of them. Most can be avoided by ducking, and you will have to be careful about taking out the face huggers scattered about the place before they set them off too. Head to the platform in the middle of the room and destroy the crate. Climb up the nearby stairs (more face huggers!) and push the button to open the door. Move out to the platform and jump on to the platform below. Hit the button and get the hell out of there!

Grab the rather cool Hivearm and the ammo and continue along the path, taking out the sentry gun in the back of the truck you will pass. If you've got a guard tagging along with you, tell him to wait near there, then continue along. When the alien dropship drops off some aliens, run away! Soon after, a plane will fly over and drop some bombs on them - and you if you're too close. Run back up the ramp and hide around the corner to the right and above, where the tank can't hit you. Wait for the tanks to come, and take them out. Then make a run for it to the tank avoiding its fire and take it out with the crowbar, or hit it from a distance with RPGs.

At the rear of the building is a bunker which can be grenaded fairly easily, and then you should go back and grab your guard friend at the army truck. The entrance to the building is around the back, and upstairs is a room chock full of ammo - but you'll need a guard to open it for you. Climb out the window at the top of the stairs, falling onto the ledge and moving around to the rear of the building, jump onto the generator from here, onto the next generator and then to the ladder. Once up on the roof, follow the broken wall along and jump down to the right to get to the doorway in the left corner. Enter the helipad area and go through to the shelter and continue along, climbing up the crates to get to the land-



ing. You will be dealing with many adversaries, so be careful. Use the big gun to blow a hole in the door opposite (and any aliens silly enough to get in the way), and enter. Use the big gun here to make a turkey shoot of the slaves that keep appearing. Move onwards and use the alien jumping device thingy to get up onto the ledge, then continue along to the right, dropping down when

everything is dead. Enter the chute in the corner and follow it along until you drop down into a garage.

Open the door on the right, backing off as it opens - as it will explode and the wall with it. Drop the lift by using the switch, then raise it and jump through the hole in the wall. Blow another hole in the next door with the



cannon, and continue on. Drop down onto the crates and kill the grunts before they know you're there, then use the alien jump pad to get to the roof of the building. Bash the grate and drop down into water, then get into the pipe. As you move along a soldier will open the other end and drop a grenade in - run away! Once the fireball has passed, continue along and give the Marine a good scolding for trying to flambe' you. Continue along and turn the valve, then drop out the other end of the pipe and follow the stairs to the top. Grab the guard and bring him to the bottom of the stairs where he will open a door for you, bring him along past the boom gate and he'll open another door which will allow you access to the car park area. Here you'll meet a new friend, but he'll want to play rough with you, so run away to the right. Use the jump pad to get up onto the wall and run across the thin pipe to get to the second silo. You don't have much time, so act fast. Set the co-ordinates of the air strike thing to point to the far left corner of the compound (as you're facing). Keep calling in airstrikes until you hit the tunnel opening so that it's accessible. Jump in, and you're done, just follow the path along for a short while and you've cleared another section.

Forget about Freeman

A large piece of the ceiling will fall in front of you here, so be careful. Go right and climb up the side of the fallen ceiling and into a passage. Continue along (dealing with the aliens as

HALF-LIFE



they appear) to the T junction. Go right to the landing and kill the Snark nest. Turn the valve, then go down the ladder. Kill the sentry gun and the aliens (or let the sentry gun kill the aliens then take it out), and jump over the canal. Push the crate so that it lands in the water, jump in, and then use it to jump over the grate. Continue along until you come to a rotating cog thing, crawl under, then swim under the pipes, then another set, and resurface. Crawl under another cog thingy, get into the pool and climb out on the left quickly. Deal with the marine, then climb the ladder.

Kill the Marines and run past the tank as quickly as possible. Shoot the sentry gun behind the tank and take the lift up. Continue along to the T junction, turn right (watch out for Marines here), and go up the stairs. Watch the Marines and aliens battle it out, then kill whoever wins. Use the cannon to destroy the tank and open up a

way ahead. Follow along and hit the button to open the doors into the next area. Clear!

Lambda Core

The office on the right has a button which you should press to take the platform down. Climb the ladder, enter the door, then go down the ladder, and continue along. The large warehouse that you will enter has more of those dastardly assassins. Good luck! Continue along to the passageway barricaded by crates once you've killed them and break on through to the other side, break on through, break on through, break on through to the other side! Sorry, concentration wavered for a second there. <Slap>. OK, up the stairs you'll be confronted with two more assassins - joy! Continue along the path until you come to a lift.

Go through the door to the left once down, and climb the ladder to a landing above. A scientist will open a door for you once the room is cleared and have a nice



chat with you. Continue along, replenishing health and HEV, and going right after the lift upwards will get you a gluon gun. Ooooooh. The other end of the corridor has a lift. Use it.

Here you will see a map of the reactor core. This might at first seem complicated, but it's not really. Go right then take the first left to Coolant System 2, and follow the path along, dealing with the aliens as necessary. Climb the ladder (beware the collapsing landing) and continue along. You'll come to a pump room, with a lever to be pulled to activate the pumps. Go back to the red coloured machinery room and follow the path to Coolant System 1. Do the same procedure and then head back to where you started from. Head to the corridor left of the lift and when you get to a T junction turn right, grab the ammo, health and HEV, then go back down the left junction. Jump into the water, swim down the maintenance passage, surfacing halfway for air, and then turn the two valves in the water. The water will rise, so swim up and climb the ladder to the top. On level D follow the passageway until you get to the supply room, collect as much as possible, and use the lift and then the ladder to move upwards. Once at the

top, jump down to the landing below you, and continue along, turning right at the T junction. Open the door labelled "core" and enter into hell. Well, not hell, cos I'll tell you how to do it. Figuring it out for yourself is annoying and frustrating. You're in a room with teleporters. Red spheres are in points and green spheres are where you end up. Once you enter the first teleporter, you'll notice that there are numbered entry points for the teleporters. You want to take your jumps into the teleporters so that you land on the moving platforms (yep, Lara territory again - and it gets worse later on). The quickest order to get through is to enter teleporters 2, 4, and 7 (3 and 5 go to extra ammo if you need it). This will take you to a room with a spinning ring and more rotating platforms. Jump across to get to the button marked '1', press it, and jump to the opposite side to press the '2' button. The central area will open up, jump in there and get back to the fighting instead of this crappy platform crap.

Go through the door, and along the passageway, head up the ladder and go to the glass door. Collect all the ammo and the jump equipment too. Head into the main portal room, tak-



HALF-LIFE

ing the guard with you. Climb the ladder on the far side to reach the platform, and prepare to deal with flying alien nasties when the scientist starts up the portal. Make sure that the scientist is protected from the aliens for a short while until he tells you to jump in. Do so, and enter the Alien Tomb Raider world!

Xen

It's jumpy jumpy time. Jump to the two floating islands on the left, and generally pretend you're playing a platform game until you can reach the main island below without hurting yourself. As you wander around the island, you'll find a pool which will heal you, and also a cave nearby. Head into the cave. Break through the webbing stuff, and activate the three weird mushroom like things around the room. Then shoot the webbing around the fluttering objects, in a few seconds they will fly to the mushroom things and open up a portal in the centre.

Gonarch's Lair

The first of the big bosses to deal with. Yep, don't get too excited, there's another one to deal with after this. Gonarch will spawn tiny little babies which act like the facehuggers. They will die very easily though, and the Hivearm is the perfect weapon to use to deal with them. Dodge and hide as best you can and use your heavy weaponry on the exposed underhead of Gonarch. After you have damaged him a certain amount (probably a couple of minutes) he will run away down into a cave. Follow him there, and again use the same method to send more hurt his way. There is a platform with a healing pool and a jump pad here if you need them. Again, once he is damaged enough, he'll make a run for it through some webbing - follow him down (after a short while). You'll end up below Gonarch, who is suspended by some webbing above you. Continue evading the little baby Gonarch

things and inflict even more damage upon daddy. Eventually he will die, and create a teleporter in the middle section with a healing pool. The teleporter leads back to LaraLand.

Interloper

At the far right of this island there's a cave on the right hand side. Enter, break the webbing, and then follow the passage to a room - beware the gas trap here. Once the teeth things open up head through and into the next room. On the far side is some webbing, which can be broken through. The next room has a column which will drop down. Hop on and enjoy the ride up, up into the sky. There's a teleporter on a far floating island, locate it, and look at the alien ships that helpfully fly towards it. Jump on one when you can, and then jump onto the teleporter platform when you can. You'll end up in a cave, head out and left in to an open area, in the building to the right is some ammo (along with plenty of nasty aliens). Head into the cave to the left of the piston things.

Move to the right, and run away from the huge monster by hugging the wall to the right. The tentacles will have trouble finding you if you crawl to avoid detection here. Jump into the hole in the wall above the tentacle, and follow the passage. Run into the room where the alien was and turn left, then make a long jump to get to the other side of the gap. Climb up on the other side of the rocks past the tentacle and follow the path through to the clearing on top of an island with a teleporter.

Follow the corridor that leads to the alien factory. Jump on the moving lift, then hop off on the first level. Wait for the lift to go back down, then jump on top of the lift and follow it up to the top. Jump onto the conveyor, jump across to the second conveyor and follow it down into a pool of slime. Get out as quickly as possible, and follow the ledge around to the right. Jump on the convey-



or belt with the barrels and follow it along. On the left wall is a hole that you should go through, which leads to the room you were in previously. Hop onto the rising and falling piston to get up on to the next level. Follow the path along, and shoot the barrel that blocks your way. Crawl down the chutes at the far end of the room, enter the new factory and head left. Head up the ramps and follow along until you get to the spiralling lifts. Use these and jump into the portal at the top. There are plenty of aliens to deal with here, but there's also plenty of ammo and health in the side rooms of this section. Deal with it as best you can, then enter the portal.

Nihilanth

You're at the final stage, but first you'll have to conquer yet another pointless and annoying jumping task. It's a bit worrying really, isn't it? Jumpy jumpy jumpy until you're at the room with Nihilanth, the big baby. He has two attack modes,

one will teleport you into another section on that island (often with ammo and health, so it's not necessarily a bad thing), and the other which will hurt you a hell of a lot. Hiding behind the towers in the room will protect you from the teleport attacks if you want, and you will still be able to shoot at him. Before you start to attack Nihilanth shoot the glowing crystals on the walls of the room (there are three), because these are what he draws power from. Once the crystals are destroyed you can begin to destroy Nihilanth. Once you have damaged Nihilanth quite a bit, his head will open up. Use the alien jump pad to reach the high platform (and use the healing pool too), then shoot the glowing sphere inside his head when you can. He'll eventually die, but before you can sit back and enjoy the satisfaction that comes from completing such a magnificent game as this, you have one final decision to make. Enjoy!

TIPS & TACTICS

Really little walkthroughs

STAR WARS REBELLION

***** Make sure you don't neglect your maintenance points and keep them in positive numbers. You can lose maintenance points when your opponent blockades or takes one or several of your planets. To keep maintenance up, you must build mines and/or refineries, trying to keep equal numbers for both. If the Raw Materials Monitor shows a number greater than 0, build more refineries. If the Raw Materials are constantly at 0, build more mines. Aim for maximum output which is 50 per pair.

***** To gain strength, build up 2 planets in a system with 2 Construction Yards early in the game and one planet with 3 Construction Yards. Next, within the system make sure you have at least 2 Shipyards and 2 Troop Training Facilities.

***** Once this has been achieved, make sure that each planet gets 2 GenCore shields and 1 LNR Series laser for defense. That way no fleet can bombard you without suffering severe losses, and your planet is safe from attack by your opponent's ground forces.



DESCENT II

How to kill the Thief Bot:

***** After you encountered the thief bot, place yourself somewhere where you can't be attacked from behind, preferably at the end of a long hallway and wait.

***** Now, place some Smart Mines in front of you (not too close to yourself) and turn your back to them. Soon he'll appear, run into the mines and take a lot of damage. You may need to do this twice to get him.

***** If you don't as yet have smart mines, use flash missiles. When it's very close, launch a Flash Missile and the bot will be stunned for a few seconds. Now, hit it hard with either the Plasma or the Gauss Cannon. Keep hitting it with flashes in the interim so it can't recover and run off.



TOMB RAIDER 3 SECRETS

India

***** Before you start sliding down the first hill, jump over the slope to your right and slide down to the flat ledge. Jump over to the yellow rock and crouch to find Secret #1 - the Shotgun.

***** After the rolling boulder, jumping to the area will give you Secret #2 - Shells.

***** Climb the pillar after the arch and turn left at the top for Secret #3 - extra ammo.

***** Secret #4 is an area and is located past the fallen tree and 2nd tiger. There is a standing tree which you can jump up and climb. To get back out, hang and drop into a spiked pit with slopes. Keep jumping and moving to one side to escape. After triggering another boulder trap, jump up to the hidden ledge above the switch for Secret #5 - more ammo.

***** In the pit below the medikit, drop and quickly grab the next ledge. Now pull up and enter the passage for Secret #6 - Flares.



ABE'S EXODUS

***** At the very beginning of the game, there's a secret on the first screen. Walk behind the barrel on the right and go down to get there.

KINGDOM OF MAGIC

***** To get inside the Gorgon's cave, use the mirrored sunglasses which you can get from the policeman in town.

***** To kill the dragon, take out a contract on the dragon's life. This can be done through the elven Mafia.

ORACLE

He's weird, he smells funny, and he scares us more than a little bit. But he knows lots of stuff!

It's great to see all the letters pouring in. It's really weird seeing what you folks get up to with your spare time and what lengths you'll go to just to get your questions answered. So if you're stuck in a game or two and need some help let me know...The Ayatolla of RocknRolla has advice on everything, especially games. And just remember, no more human sacrifices, unless you got pics to prove it...



Write to the Oracle at:

ORACLE
PC POWERPLAY
78 RENWICK ST.
REDFERN
NSW 2016
ORACLE@PCPOWERPLAY.NEXT.COM.AU

FINAL FANTASY 7



Can you help me with Final Fantasy 7? I'm stuck, and there is no one else to turn to. I am up to the Mt. Corel level. I have been walking around and killing the enemies and have spoken to the hiker but I can't find the save point. Can you please help me?

Peter "Meathead" Morris
Ruse



Speak to the hiker and then keep heading north along the cliffs. You'll emerge on a high catwalk above a deep gorge leading to a gigantic furnace. Pick up the Morph materia located in the chest. Continue south on the catwalk, and then take the ladder down from the furnace to the train tracks. Follow the train tracks east. You'll soon find a save point.

QUAKE 2



I have recently begun playing Quake 2 deathmatch on the internet and I am amazed at the height some people are jumping. Sometimes they jump right over me then shoot me while they are in the air. How do they do this and is it possible for me to learn?

Thresh
Chipping Norton



Another Quake wannabe. Listen you got two options: give up your life to master

Quake 2, meaning no sex, drugs or rock-'n'-roll (if you were me, you could get away with it), or continue living under a rock. What they are doing is an advanced move known as a rocket jump. You can do one of these by aiming down at your feet shooting a rocket and jumping at the same time. Beware this will take a fair amount of health from you so make sure you have plenty beforehand.

AGE OF EMPIRES: RISE OF ROME



I bought the Age of Empires expansion pack and have just started getting really into it. It has new units, one of which is called an Armored Elephant. How do I get one? And what are they good for?

Mangeboy
East Hills



The easiest place to find elephants is on internet relay chat (IRC) channels. Just ask for a pic and you'll see what I mean. However, with Age Of Empires it a totally different matter. To get an Armored Elephant you'll require Stables and you must research Armored Elephant at stables for 1,000 food, 1,200 gold. This is the most powerful unit in the game and great for destroying walls and towers. However, watch out for the priest, he has the power to turn these beasts against you.

GRIM FANDANGO



Please spray me with glorious wisdom o wise one. I am stuck in The Petrified Forest in Grim Fandango. I am trying to get Glotis's heart out of the giant creatures' web. I've tried using my scythe but it doesn't work. How do I do this?

Six Fingered Rock Ape
Wollongong



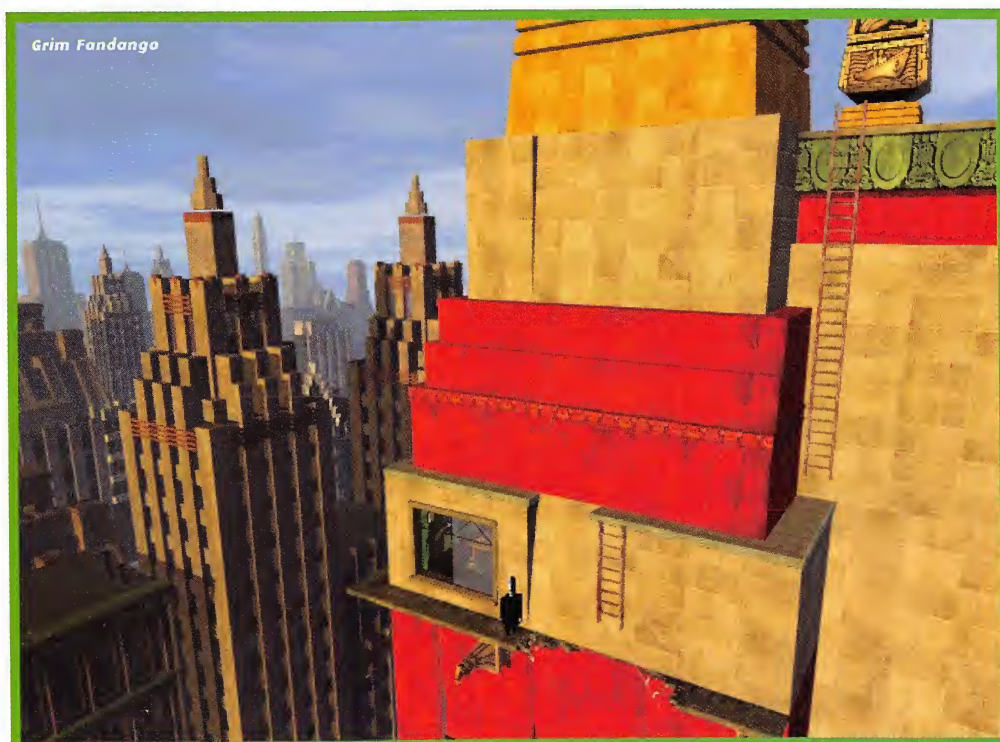
I'm not spraying you with anything. Using your scythe to cut it out won't work - but you do need your scythe. Pick up one of the bones from the pile and throw it in the web (you may as well pick up four or so more - they'll come in handy later). Now, use your scythe with the bone to send the heart careening back to Glottis. After you give him the heart, he'll jump back on the Bone Machine, and you two can explore the rest of the forest.

INTERSTATE 76



What's the story with Interstate 76. I'm on episode 12 and have killed Disco 'cause he was a pain. Now how the heck do I finish this mission?

Funky Ron
Silverdale





Grim Fandango

***** Once you have killed Disco, this is what you have to do. Head north up the road through the compound. At the end, you will see three buildings with closed doors. Shoot at the centre door until it opens. Inside, you'll see a ramp. Get some speed (activate your Nitrous Oxide if your engine is damaged) and head up the ramp. Once you're over the wall, the mission ends.

DEER HUNTER

? I've been playing Deer Hunter for a while and I need a bit of help on using the map. How do I use it? And what do I look for?
Hillbilly Wilson
Bringelly

***** Just like in the night club scene, hunting success is often determined by location. Always keep in mind that deer have an amazing sense of smell (likewise, so do some girls at nightclubs - but they're the ones you'll want to steer clear of), so you should try to move in sync with the directions of the wind. Move your target icon around the map until you find some signs of a deer's presence, eg droppings, rubbings, and beds. Most of the deer signs can be found in the dense section of woods surrounding the opens, since bucks stay out of the opens to avoid being seen. You should try to do the same. Once you find a deer sign, let the hunt begin.

X-WING VS TIE-FIGHTER

? I need to know how to efficiently use the wingmen in missions to help me defeat the enemy. Can you offer some suggestions...
Darth Chi
Hoxton Park

***** Getting along with your wingmen makes all the difference in the world. Recall that Shift-c orders your wingman to cover your back should you come under fire. Don't hesitate to use this command if you're in trouble, but bear in mind that your friends will likely have their hands full just like you and may not be able to respond as fast as you'd like. At the same time, if you're busy fighting your own fight and see a bad guy going after some undefended target, select that enemy and press Shift-a to tell your wingmen to attack it. Then you can get back to what you were doing. When working with a wingman, the better pilot should swallow his pride and try to draw the enemy's attention while the other takes the opportunity to get behind the opponent and blow him away. This is an excellent tactic on many levels - the diversionary pilot can concentrate all his efforts on evasive maneuvers, and at the same time, his wingman will be able to focus on his aim. Ganging up on individual opponents in this way is a solid and reliable strategy. While you cannot rely exclusively on your wingman, if you work

together efficiently, you will virtually double your chances of survival. And just like your cousin Mary, learn to use the force...

UNREAL

? My dearest Oracle, I've always loved you like a brother, if you could see your way clear to playing Santa for me, I need some help with the Cellars at Dasa Pass. I've got to the upstairs area with the multiple Nali sacrifices and the eternally regenerating Krall, but I can't figure out how to open the gate in the room where the Krall boys just keep on coming. Please help, I need to finish this so I can go and get Half-Life.
Trevor Taylor
Internet

***** Ok, enough with the goo talk, sounds to me you like you have to get on with Real-Life, but because you sent a pretty pic I'll spare your life. Here's the answer to your problem. I'll assume you've defeated all the Krall that try to ambush you when you open the door. On the left ledge turn the lever and dive into the water. Look for the small opening in the wall. This will lead to a secret room filled with blood and dead bodies. Exit the room and return to the room you started the level in. Back in the entry room, a new door will now be open. Enter the door and challenge the two Krall guards. When they die, the gated door on the right will open...

CODE

“Cheat /tʃip/, n. A fraud; swindle; deception”. That’d be you, then.

SHOGO: MOBILE ARMOR DIVISION

Press “T” for Talk, then type:

- MPGOD** = God mode
- MPKFA** = Full Ammo, Armor, and Health
- MPHEALTH** = Full Health
- MPAMMO** = Full Ammo
- MPARMOR** = Full Armor
- MPCLIP** = Clipping Mode on/off
- MPPPOS** = Show Position on/off
- MPCAMERA** = Adjust Camera on/off
- MPLIGHTSCAPE** = Adjust Lightscape on/off

HERETIC 2

To use these codes simply enter them in the console (‘~’ key toggles console)

Cheat Codes:

- playbetter** - god mode on/off
- twoweeks** - powerup on/off
- meatwagon** - kill all non-boss monsters
- victor** - kill all monsters (including BOSS)

Other Codes:

- angemonsters** - monsters get angry
- crazymonsters** - monsters out for blood
- kiwi** - clipping on/off
- showcoords** - show coordinates
- weapprev** - select previous weapon
- weapnext** - select next weapon

SIN

First press the “~” key (just like in Quake and Q2). Then enter the code:

- /health 999** - Health 999
- /wuss** - All weapons
- /superfuzz** - God mode
- /nocollision** - No clip mode
- /wallflower** - No target
- /spawn magnum** - Gives the Magnum
- /spawn shotgun** - Gives the Shotgun
- /spawn assault rifle** - Gives the Assault rifle
- /spawn rocketlauncher** - Gives the Rocket launcher
- /spawn sniperrifle** - Gives the Sniper Rifle
- /spawn heligun** - Gives the big gun from the chopper
- /spawn reactiveshields** - Gives the ReactiveShield
- /spawn rockets** - Gives Rockets
- /spawn coin** - Gives a coin
- /spawn health** - Gives a healthpack
- /spawn cookies** - Gives a pack of cookies
- /spawn lensflare** - Makes a light-effect

TOMB RAIDER 3

Level Skip

- **Draw Pistols**
- **Take one step back**
- **Take one step forward**
- **Duck and stand**



HALF-LIFE

Start Half-Life using “**hl.exe -console**”. You may do this by modifying the windows shortcut properties for Half-Life and adding “**-console**” to the end of the “Target” (or file to run).

The **/GIVE** command works if you start the game with the **-dev -console** parameter, and the God mode cheat and map change cheat only works with the **-console** parameter. This will let you access the console using the “~” key.

You may have to type “**sv_cheats 1**” in console first. The following commands are available in console:

IMPULSE 101 - Give all weapons and ammo.

GOD - god mode.

NOCLIP - walk through walls/fly.

MAP xxxx - go to map xxxx. Here’s the maplist:

Single Player:

- c0a0 ; c0a0a ; c0a0b ; c0a0c ; c0a0d**
- c0a0e ; c1a0 ; c1a0a ; c1a0b ; c1a0c**
- c1a0d ; c1a0e ; c1a0f ; c1a1 ; c1a1a ; c1a1b**
- c1a1c ; c1a1d ; c1a1f ; c1a2 ; c1a2a**
- c1a2b ; c1a2c ; c1a2d ; c1a3 ; c1a3a**
- c1a3b ; c1a3c ; c1a3d ; c1a4 ; c1a4b**
- c1a4d ; c1a4e ; c1a4f ; c1a4g ; c1a4i**
- c1a4j ; c1a4k ; c2a1 ; c2a1a ; c2a1b**
- c2a2 ; c2a2a ; c2a2b1 ; c2a2b2 ; c2a2c**
- c2a2d ; c2a2e ; c2a2f ; c2a2g ; c2a2h**
- c2a3 ; c2a3a ; c2a3b ; c2a3c ; c2a3d**
- c2a3e ; c2a4 ; c2a4a ; c2a4b ; c2a4c**
- c2a4d ; c2a4e ; c2a4f ; c2a4g ; c2a5**
- c2a5a ; c2a5b ; c2a5c ; c2a5d ; c2a5e**
- c2a5f ; c2a5g ; c2a5w ; c2a5x ; c3a1**
- c3a1a ; c3a1b ; c3a2 ; c3a2a ; c3a2b**
- c3a2c ; c3a2d ; c3a2e ; c3a2f ; c4a1**
- c4a1a ; c4a1b ; c4a1c ; c4a1d ; c4a1e**
- c4a1f ; c4a2 ; c4a2a ; c4a2b ; c4a3**
- c5a1**

- **Spin around 3 times**
- **Jump forward**

All Weapons

- **Draw Pistols**
- **Take one step back**
- **Take one step forward**
- **Duck and stand**
- **Spin around 3 times**
- **Jump backwards**

POPULOUS: THE BEGINNING

Hit the **<tab>** and **<F11>** keys together to enter text entry mode:

Type in “**byrne**” - this activates cheat mode, then during the hit:

- <tab>** and **<F3>** gives all spells
- <tab>** and **<F4>** gives all buildings
- <tab>** and **<F5>** gives full Mana

WARGASM

Level Codes

- 1 - **CHEESE**
- 2 - **TOAST**
- 3 - **BUTTIES**
- 4 - **KEBAB**
- 5 - **GATEAUX**

N.I.C.E. 2

Pause the game then type:

- MACHTHREE** - a new car with max speed of 600 km/h (in every race you select).
- IMPACT** - unlimited ammo in deathmatch
- OVERKILL** - weaponmode in championship
- ALLOFF** - cheats off

The Banshee Has Landed

MAXi Gamer Phoenix 16Mb

INTRODUCING THE REVOLUTIONARY VOODOO BANSHEE™ CHIPSET



Matching Voodoo2™ core technology with unsurpassed 2D performance, the Phoenix not only reaches the highest levels of applications such as Power Point™, Web Browsing, Spreadsheet charts, faster refreshes in Windows®, but also offers high quality rendering and advanced 3D features for the highest level of Gameplay.

- Industry First 128-bit VGA, 100 Mhz single-cycle Windows GUI Acceleration
- Integrates 3Dfx Interactive®'s latest technology: Voodoo Banshee™
- Up to 100 Mpixels/sec, 100 Mtexels/sec and 4 million triangles/sec
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When you write, remember to include as much pertinent information as possible. Send your CONFIG.SYS and AUTOEXEC.BAT and any associated *.INI files for Windows that might tell me more about your problem. Give me as detailed an explanation as you can and be sure to include as much detail as possible about your PC. Feel free to email your questions or, if you want to snail mail, please remember to write clearly or better still, print your letters. Please note that due to the volume of messages we receive, we cannot guarantee a response to your queries.

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PC PowerPlay
78 Renwick St
Redfern
NSW 2016
setup@pcpowerplay.next.com.au

REMOVING TEMP

Q I was wondering if you could help me with my temporary directories on my hard drive. My C:\TEMP and C:\WINDOWS\TEMP directories are full of stuff and I was wondering if it is all right to delete it. I have Windows 98 and have run the disk clean-up but that does not clear those directories. Do I have to exit to DOS before deleting the files? Please help because these files are filling up my hard drive.

Tim Wilson
Internet

A It's a good idea to clean up your temp directories every now and then, especially if you're low on disk space. After a number of months of use, it's possible for Windows to suck up many megs of hard drive space with temporary files it creates and doesn't delete.

You don't have to quit to DOS, just close all your running programs, including anything in the taskbar, and then select all the files and delete them from the two temp directories. If anything temporary is being used at the time, the file should be locked and you won't be able to delete it anyway. Everything else will be deleted and you'll free up some space.

THE RIGHT API

Q What sort of performance would someone be looking at getting if they were running a Banshee with Glide compared to a TNT running Direct3D?

Mark Smith
Internet

A OK, there seems to be some confusion out there about 3D hardware and 3D APIs. First off, let's talk Glide. Glide is 3Dfx's proprietary API for 3Dfx cards. Because it's designed with 3DFX cards in mind, a game that supports Glide will generally always run better than the same game using OpenGL or Direct3D using a 3Dfx card. However because Glide is proprietary and designed for 3Dfx chips, you're not going to find it available for any other card. So what else is there? OpenGL and Direct3D. Direct3D is, as you know, Microsoft's 3D API that works well for compatibility, but sucks for speed (at least at this point in time). By comparison, OpenGL, an older and well established 3D API, is very fast and very slick - but it requires an OpenGL driver be written for each 3D card. The same can be said for Direct3D of course, however all cards come with Direct3D drivers but not all cards come with OpenGL drivers.

So what does it all mean? If you've got a 3Dfx card always choose Glide, then OpenGL (if it's available - 3Dfx doesn't have a fully working OpenGL driver yet), then Direct3D. If you've got something else, your only options will be OpenGL and Direct3D, and again go for OpenGL first.

So, the speed question? That depends entirely on the game. There's no point comparing cards if you're not using the same API. A good comparison might be a game like Half-Life where OpenGL is used for both the TNT (through the TNT's OpenGL driver) and for 3Dfx cards (through a Mini-GL driver provided by the game, the same as you'll find with Quake).

MIXING UP MHZ

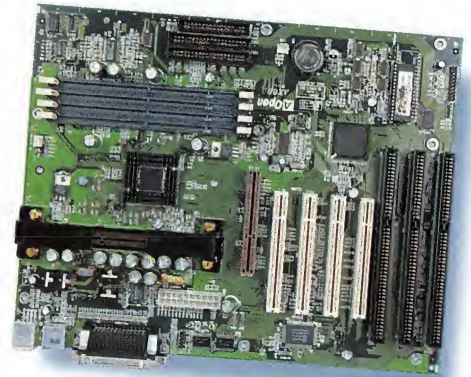
Q Something that has perplexed me for a long time now, (which isn't a new thing for me, but anyway) is how many sections of a PC seem to run at different MHz frequencies. A'la the CPU, the CPU's L2 Cache (although not anymore), the BUS and the PCI BUS. How can they function if they are all running and being accessed at different speeds? (or frequencies)

Also while I'm on the topic of frequencies, how does the clock multiplier work, I realise that 3 times a 66 Mhz Bus speed would equal 166 Mhz CPU speed, but why does the bus speed need to be multiplied by 3 anyway, isn't the CPU meant to run at 166 Mhz alone? I'm sure this would have some connection to my other question.

Any help with these questions would (again) be much appreciated, as my brain is beginning to get tired of saying 'I don't know'.

Duncan MacDonald
Internet

A That's a good question. What you have is a number of different busses - CPU to L2 cache, main memory, and peripheral busses such as ISA, PCI and AGP. For the memory busses, the



WE LOVE MOTHERBOARDS. ESPECIALLY FAST ONES.

CPU has to wait around for information before it can proceed. That's why a fast L2 cache is beneficial (ie, how a CeleronA with a CPU frequency 128k L2 cache can perform as good as, and sometimes better, than a PII with a 1/2 CPU frequency 512k L2) because when the CPU performs calculations and uses the L2 to store temporary information, it can retrieve it quicker and continue. The same goes for main memory, and the reason why 100MHz is such a big deal. The difference between a 66MHz and 100MHz bus may not be that noticeable (apart from how responsive the machine may seem) because both Bus speeds are able to transfer mind numbing amounts of information a second. However main memory isn't just accessed by the CPU, it can also be accessed by devices on your peripheral buses such as AGP cards. If the memory bus is being shared by the CPU and an AGP card, it needs to be going fast enough that it can supply the demands of both without slowing one or the other down.

Your second question about the multiplier pretty much answers your first question - it's all about the clock. Every motherboard has a crystal that produces frequencies at a regular interval. Everything on the motherboard works in time with these frequencies so data can be moved around in sync. While a CPU might be able to operate at 400MHz, main memory and peripheral buses certainly can't. The PCI bus is a division of the clock frequency, the CPU is a multiplication. This is why overclocking benefits all aspects of your machine - you're setting the clock to run at a faster frequency which thereby speeds up the result of a division for the PCI bus and a multiplication for the CPU. So in answer to your question, even if different busses run at different speeds, everything remains in sync because it's designed to work with the clock. And with this in mind, it's easy to see why CPUs use an internal clock that's a multiplier of the external clock.

MISSING MEMORY

Q I'd first like to congratulate you guys on a great magazine. It's the only thing I actually read.

I currently own a Cyrix P200 MMX with

32MB RAM and a 4MB Monster 3Dfx card. My 2D card is built into my motherboard and so is using almost 2MB of my 32MB RAM. When I go to system properties in Windows it says I only have 31MB RAM.

a) Would this 2MB shared RAM cause a big difference to games requiring a full 32MB, ie. Shogo or FF7?

b) I am thinking of upgrading my graphics cards. I want to get a 2D/3D combo card. Are there any that will outdo my Current 3D card in terms of 3Dfx grunt. My budget is about \$250. What do you recommend?

c) If I do get a combo card, how will I bypass my onboard 2D card?

DJ Pirao
Internet

A OK, firstly your video card isn't using any of your main memory. Your built-in 2D card has its own video memory on your motherboard. The reason you see 31M instead of 32M in Windows is that part of the first 1M of your memory is taken up by the High Memory Area where the DOS kernel is loaded high and various shadow memories reside. This is something that affects all PCs (although newer BIOSes report the full amount) and is a legacy of the Intel architecture. Will this small loss affect games? Not really, because it was never available for games in the first place.

As for upgrading, getting a combo 2D/3D card is a good idea, as your built-in 2D video is probably quite old and it's worth upgrading from that old 4M Diamond Monster. There are a number of good choices available such as Banshee or TNT based boards. Really, it's a matter of preference. Look around at what you can afford and get the best for your money.

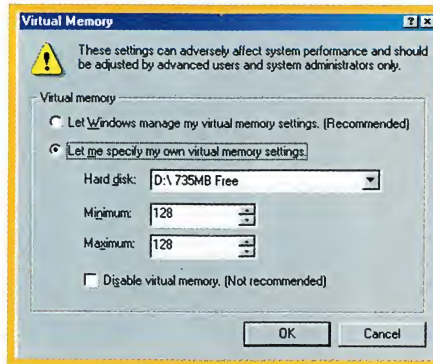
You should be able to bypass your onboard video in the BIOS - there should be an option to disable it. If not, it most likely can be disabled using a jumper on the motherboard, but you'll need to dig up the motherboard manual to find out where the jumper might be.

POOR PING

Q I've been waiting for a modem for a year now, and now that I have the Internet, I find it's just about impossible to actually have a game. There is never anyone in the Heavy Gear lobby, and even with an orange ping, I can't have a fast Dark Reign game. I'm told that to connect at 42k is good, so why can't I get low network latency?

Jerry Atric
Internet

A Internet Service Provider. You are at the mercy of the quality of service from your ISP. If you connect to the Internet through Bob's El Cheapo Net Access, don't expect lightning speed. Everything in IT, and I mean everything, is a case of 'you get what you pay for'. If



PLACING YOUR VIRTUAL MEMORY ON A SECOND HARD DRIVE CAN BE A REAL PERFORMANCE BOOSTER FOR LOW MEMORY SYSTEMS.

you want low ping times and fast transfer times, you'll have to go with an expensive ISP. Ultimately, Telstra is the fastest because they own the equipment through which most other ISPs get their access from. Some large ISPs have their own links to the States, but as you can imagine, they're not going to be cheap either. There's not a lot you can do except try and play games on local Australian servers where ping times are likely to be better even on the smaller ISPs. Alternatively, if you can afford it, you can change ISPs.

SPEED AND SIZE

Q Hi, I just want to ask something about harddrives. Is a single 8.4Gb harddrive better than two 4.2Gb ones. They are the same brand, I just want more performance (speed). I'm asking this because I'm planning to upgrade. One last thing, say for Starcraft, there is 3 patches for it at the moment. If I delete it and then reinstall do I have to install all three patches or just the recent one?

Faijay
Internet

A You probably wanted a simple answer, but you wrote to Setup, oh well. Large hard drives are faster than smaller hard drives of the same design for this reason: large hard drives pack in more bits (density) in any given area than smaller drives, therefore when the heads read from the platters they're able to read more information for the same spindle speed over that of a smaller drive. However, two heads are better than one (clichés rule!) and you can boost the performance of your machine if you use two hard drives and break up your data between them. For example, installing Windows on one drive and placing the swapfile or games on the other. This way as you load your applications, if any extra Windows files are required, they can load from one drive without affecting what's being loaded on the other. If your swapfile is needed, Windows can read and write to it without slowing down any access that's happening on the Windows drive. Nifty huh?

For Starcraft? As with any good patch system, you only need the latest **update**.

Tech Tips

Tips and tricks to make using your PC a more pleasant and enjoyable experience. Really.

The first tip is from **Trent 'Littlemore' Yarwood**:

I've noticed that you've all been advocating ripping the Wing5 Key out of your keyboards in order to be a hardcore gamer.

*Well, to be a *smart* hardcore gamer, you download Microsoft's Kernel Toys Patch, and install the Program "DOSWinKey". This lets you disable the Win Key when your programs are running, but leaves it on the keyboard for when you're in windows - a much better solution.*

Thanks Trent, that's a good one. Personally, I think they should never have brought out keyboards with Wing5 keys - who uses them anyway?

And **Cambell Jones** was nice enough to send this in:

If you're like me and you hate having to take a very long time to get to your Control Panel just to run one program and then close the window again, here's a little something I found out while fiddling with my computer. In your Registry there is a key called

```
[HKEY_CLASSES_ROOT\CLSID\{21EC2020-0-3AEA-1069-A2DD-08002B30309D}]
```

Copy the number out of it. Now make a folder in your Start menu and rename it as:

```
"Name_ Here.{21EC2020-3AEA-1069-A2DD-08002B30309D}"
```

That's all there is to it, you now have a cascading control panel menu in your Start menu (that is always updated i.e. direct link, not shortcut).

All I ask in return is that you don't start lecturing me about how much time I must have free, or call me a very, very sad person.

OK Cambell, we won't publish that you must have plenty of free time or that you might be a sad, sad person. Oops.

If it's new, cool, and 3D, Jere knows all about it. He's good that way

VOODOO 3

Is it the biggest news to hit the gaming world since the announcement of the Voodoo2? Jere tells all

We made mention of it in last month's news section - the Voodoo 3 is on its way. Well, due the middle of next year, anyway. Believe it or not, there's a lot of conjecture regarding the Voodoo 3. From what everyone has seen, it's essentially 2 Voodoo 2's in SLI with a very fast 2D component.

There is still the factor that the Voodoo 3 is twice as fast as 2 Voodoo 2's SLI, but this comes purely from the fact that the clock speed has been increased almost by double. There is of course the addition of texture compression but even 3Dfx are admitting that the next big technology release will come from the Voodoo 4. The Voodoo 3 is faster but without any particularly exciting newer functionality.

The specs for the Voodoo 3 2000 (OEM) are as follows;

- **300MHz integrated RAM-DAC, maximum resolution of 2048x1536 @ 65Hz,**
- **250Mtexels/s fillrate, 125MHz internal clock speed**

The Voodoo3 3000 (retail) extends this feature set with;

- **350MHz integrated RAMDAC, 366Mtexels/s fill rate, 183MHz internal clock speed, Maximum resolution of 2048x1536 @ 75Hz and 4x AGP.**

The Voodoo 3 3000 will be able to work on more than 7 million triangles per second utilizing its 100-billion operations per second 3D architecture. Thankfully, it will also do this with the incorporation of full-speed, single-cycle, single-pass multi-texturing (unlike the Banshee) enabling fast processing of features such as hardware accelerated bump-mapping and trilinear mip-mapping.

One of the issues concerning many people regarding the Voodoo 3 is its lack of 32-Bit Color. Like the Voodoo 2, it renders at 32 bit, but dithers down to 16 bit at time of output. Despite AGP, there's also a limit on texture sizes. 3Dfx have been hit with numerous questions regarding this,

can elect to use? To this 3Dfx had this to say; "Including features that add no real value (marginal picture improvement in today's game for significant performance loss) is a waste of time and money. As 32bpp rendering becomes more important in games and can be accom-

plished without sacrificing performance, I'm sure you'll see us support it. Plus in today's games, the marginal visual quality improvement of 32bpp is only noticeable in static screen shots or while standing still - that's not the way we play our games!"

Another of the shortcomings faced with the Voodoo 3 is a lack of support for AGP texturing. Using system memory for textures is an advantage to numerous cards, so why not the Voodoo range? To this 3Dfx responded by explaining further how the Voodoo 3 will



to which they replied that speed is what the gamer wants, not colour. They say that as games become more hardware dependant, the demands on the accelerator are quickly going up. 3D cards need faster fill-rates for higher resolutions, special effects and much higher triangle throughput.

This is an interesting point. If a Voodoo 3 can process an immaculately rendered human 3D object that consisted of numerous more polygons at 16 bit compared to say a Riva TNT at 32 bit, the Voodoo 3 is quite simply going to look better as the object will be infinitely more refined. Considering that engines such as the Messiah engine will incorporate said functionality, 3Dfx may well have a good point.

There is also the argument that despite the fact that 32bpp rendering causes a considerable loss of frame-rate, why not just included it as an option people



SPECULAR SPOTLIGHT

Descent III

This month in the spotlight we're taking a look at Descent III. Interplay's latest Descent by far is the most graphically amazing. The new Descent engine is fully 3D accelerated and offers outdoor as well as indoor environments. Some of the most impressive features of the engine include halos around pickups (a luminous glow) as well as some incredibly coloured and normal lighting effects.

The new enemies (robots) are now animated 3D objects that attempt to drill you, punch you or generally give you the creeps with lots of moving appendages. Other niceties to the engine include textured lens flares on light sources, a translucent cockpit and "bubbling" water and lava all within a very healthy frame rate. The Descent III engine, although unlikely to be picked up for any licenses, is still an extremely worthy one.



Half-Life, and the nifty "spraypaint the wall" feature



work. With the Voodoo 3, textures are still stored in system memory until they are loaded on the card and will be loaded across the AGP bus at incredibly fast rates compared to PCI. Voodoo 3 just has textures loaded to the card rather than the card pulling textures from memory. This give developers a much more flexible way to build a texture cache and manage their memory usage.

Irrespective, the Voodoo 3 is going to sell, this is a given fact. The Banshee, which is an inferior product to the Voodoo 2 has already sold over 1 million devices. The Voodoo 3, which is essentially 4 times faster than a single Voodoo 2 is an extremely attractive purchase, especially to hard core gamers like us.

The interesting ramification however is the Voodoo 3 will be the end to multi-3D card configurations in our machines. Where you now can have your Riva TNT and Voodoo 2, in the future it'll be the Voodoo 3 or nothing. It's official, 3Dfx are taking on the world.

Katmai New Instructions - KNI

With the onrush of processors that accelerate 3D, a lot of people are more than a little perplexed as to how this occurs. 3DNow is already here and Katmai is coming, so it's worth taking a look at what these next generation processors are doing, and going to do.

Since the earliest computers, sequences of instructions have fetched operands and done computations on them. In most computers, instructions are made one computation at a time. Computers that operate this way

are called Single Instruction Single Data (SISD) processors.

Based on these computers, take a situation where 3D is involved. Just touching every pixel (doing no actual work) at 1024x768 @ 24-bit colour, 30 frames per second requires 70,778,880 instructions per second, which is a big computing load.

These newer kinds of processors (Katmai, 3DNow) however can run computations on a single stream of instructions but can simultaneously apply the instructions to several independent data streams. These are called Single Instruction, Multiple Data (SIMD) processors - and the first computer to do this was the Cray Super-Computer from the 80's.

This is essentially what these next generation processors (including even MMX technology) do. No, we're not suddenly going to have Cray power on our desks, but we're getting there. 3DNow, MMX and Katmai give the processor the ability to handle data with SIMD techniques.

MMX instructions do SIMD on integers (whole numbers). KNI and 3DNow however adds SIMD capability for floating point numbers (decimal numbers), which is what 3D is made of.

Using KNI or 3DNow, a single instruction can operate on 2 or 4 streams of numbers at the same time. Referring back to the 1024 x 768 instance with 3D acceleration, KNI/3DNow reduces the required instructions from 70,778,880 to 23,592,960. This is because red, green, and blue channels can be handled by the same instruction. Single instruction, multiple streams. Simple, innit?

KNI (borrowing from MMX) will also allow for new functionality that will assist with 3D. If in a game light is being scaled



(making the scene lighter or darker) 8 bit numbers can incorrectly go below 0 or above 255, which is called underflow or overflow respectively. You may even have encountered this error as a pop-up dialog box.

KNI will allow you to use range limited arithmetic which means the condition will not need to be tested for actual software code, but be handled by the hardware. Not only will these functions speed up 3D engines, but will also ensure less runtime errors.

Power VR250

The final specifications for the Power VR250 (second generation) have been released and I can only say that I'm waiting with huge anticipation for this card. Here's the complete list of what it can do;

MPEG2 decode assist (motion compensation acceleration), Integrated 230Mhz RAMDAC (1600x1200@85Hz), color key overlay, multiple video windows. Tile based reduced bandwidth rendering engine, 32-bit floating point Z-Buffering calculation with no performance penalty, up to 5M polygons/sec (forward facing delivered to the screen), fill rate 200-500MPixels/sec, full tri-angle & texture setup, full polygon setup engine, bus mastered parameter fetch, advanced texturing (Bi-linear, Tri-linear, Anisotropic, Bump-mapping), true color 32 bpp pipeline, translucency sorting, image super-sampling/scene anti-aliasing per pixel loadable table fog, specular highlights with offset colors, 3DNow! optimized and support for up to 32mb of SD/SGRAM.

Plus alpha and multipass blending, multitexturing support, color key and alpha blended textures, D3D and OpenGL

blend modes, 2X AGP (133Mhz) with sideband addressing, TV-Video I/O, bilinear up and down scaling and NTSC/PAL support.

The Power VR250 could be as impressive as all the above data seems to imply. There's also very good reason to believe that Videologic and NEC are going to get it right this time if only because of how the PV250 handles software DVD playback. The PowerVR250 incorporates Motion Compensation for MPEG-2 DVD Playback. What this means is that even a Pentium II 266 can experience full-framerate DVD movies at only 50% of CPU power.

Even the Voodoo 3 with its hardware DVD playback doesn't support motion compensation which means that a similar processor could falter. Adding to the PVR2's functionality is that it offers support for alpha-blended sub-pictures.

This means that it will play DVD comparable to a stand-alone player. In situations where there are subtitles, most DVD accelerators will be matted with a black background similar to closed captioning. The PVR250 however will offer multiple levels of transparency, losing the black.

In terms of 3D, hardware translucency sorting has been confirmed. On even the mighty Voodoo 2, this is a function that is handled through software. In the case of the PVR250 this offloaded burden will really improve things.

Another newly incorporated feature is Modifier Volumes that can be used for amazing special effects such as "Unreal Shadows". Think of the spinning fan, with a moving floor shadow, now imagine this with full hardware support. Currently modifier volumes are a PowerSGL function only.

Next there's the very intriguing



Tile Rendering process. Tile Rendering divides the screen into little square tiles. Then calculations are made that draw only the visible polygons for the first tile then pass the rendered tile to the frame buffer, lather rinse repeat for the rest. This is very radical technology that all the other 3D companies are watching.

Until we get one for full review we can't say for sure, but the Power VR250 does indeed look to be a very exciting accelerator. One that will hopefully make up for NEC/Videologics previous failings.

Aureal vs Creative

And on it goes. Now it's Aureal who are filing a lawsuit against Creative. Aureal Semiconductor Inc. today announced that it has filed a lawsuit alleging patent infringement against Creative Technology and E-Mu Systems, Inc.

Aureal's lawsuit alleges that Creative is infringing on two key 3D audio patents, Patent No. 5,596,644 entitled "Method and Apparatus for Efficient Presentation of Hi-Quality 3-Dimensional Audio," and Patent No. 5,802,180 entitled "Method and Apparatus for Efficient Presentation of Hi-Quality 3-Dimensional Audio Including Ambient Effects."

The complaint requests an injunction against SoundBlaster Live! and SoundBlaster Live! Value as well as damages. Aureal provided Creative with notice of this lawsuit and sufficient time to discuss potential resolution of the matter.

Creative has responded to the lawsuit with this. "Aureal is the

new name adopted by Media Vision after it emerged from bankruptcy following what has been called the largest and most elaborate financial fraud case in the history of Silicon Valley. Aureal's newly asserted claims come over four months after Creative began shipping Sound Blaster Live!

We regard this latest move by Aureal as an obvious, by-the-book, defensive ploy - an entirely predictable move given the recent rejection of Aureal's key defense in Creative's own long-standing patent case against Aureal".

Quick Bytes

Speed up Half-Life

To assist with speeding up Half-life, the -heapsize command line switch that works for GL Quake & GL QW, also works for Half Life.

To use this, start Half Life with the -heapsize switch to allocate a memory cache:

e.g. hl.exe -heapsize 64000
-heapsize 48000 is roughly

48MB
-heapsize 64000 is roughly 64MB
-heapsize 96000 is roughly 96MB

The way to set your heapsize is by available memory. Set it as high as possible and leave Win95/98 no more than 32MB. So if you have a 128MB system set the heapsize to 96MB. You can actually set the heapsize as high as you want and Win 95/98 will allocate Half Life all available memory.

Thief The Dark Project

Thief is an interesting new game that is taking 3D first person to newer levels. Instead of running around killing all that you encounter, thief is more about stealth and cunning to attain your goal.

Graphically Thief offers some excellent texturing and the incorporation of full 3D sound. On metal platforms or stone floors your shoes make distinct noises,

which can bring the guards to your position. In order to avoid this you must choose the appropriate surfaces that will not create noise and give you away.

The Thief engine also incorporates inside and outside areas as well as particle effects, not necessarily new (Quake 2) but useful for fountains.

Metal Fatigue

Metal Fatigue is another in the 3D real time strategy genre. What makes it worth mentioning however is the anime-styled robots it features. These detailed little 3D polygonal models are alive with some brilliantly fluid idle animations. Walking animations vary depending on the units weight and speed which is defined by the player.

Any given robot is a combination of legs, a torso, and two arms, which combine their attributes to define the unit. For the combots, there are distinct animations for each component's attack, which include Katana's, laser weapons, missiles, but also for the effects of being hit by different weapons. In terms of 3D there's something very special in this game.

Darkstone

Take 2, the people allegedly responsible for the great Battle Cruiser 3000 unwarranted release are trying to steal some thunder from the upcoming Diablo II. Darkstone is a fully 3D (Diablo only features 2D based glide enhancements and light mapping) RPG with plenty of monster bashing. There are eight classes to choose from (4 male, 4 female) including a Warrior, Cleric, Rogue, and of course a Magic-User.

Dominant Species

Dominant Species is another in the 3D real time strategy genre, but unlike Metal Fatigue is particularly disappointing. Unfortunately, 3D acceleration appears to have been added to offer only a smoother game rather than add anything to the graphics. Terrain textures are only average and the aliens and humans are rather obtuse.

Open GL for Voodoo 2 quite poor

id Software's Brian Hook has made several comments about the OpenGL drivers for the Voodoo2. It seems these drivers aren't at all up to scratch and are limiting the performance of games, and this causes particular concern because of development with Quake III Arena.

3Dfx has responded by saying that they're currently working on the drivers to maximize today's games. "Brian is justified in saying that the current drivers are not adequate for Q3A support. That is why we're working with him and many other OpenGL developers to address and fix the deficiencies. We'll have great Q3A drivers for all our technologies."

Alien vs Predator

The surprise demo release for this month was Alien vs Predator. Although not particularly exciting in terms of its 3D engine, the different predatory effects (i.e. thermal and infrared vision) does give the game a feel akin to the movie. Multiplayer is where this is going to have to shine though. The opportunity for people to play their favourite character, be it Predator, Alien or Marine is going to make for some very interesting online mayhem.

Jere Lawrence



Net Game News

The weird and wonderful world of online gaming

First up this month is the freeware beta release of Roger Wilco (www.roger-wilco.com). Nope, it's not a multiplayer version of Space Quest, but one of the handiest gaming tools to appear on the 'Net in the last six months. It's basically a "walkie-talkie" emulator, which allows you to talk real-time with your gaming opponents using a sound card and microphone. While this technology is hardly new, developers have embraced the potential technology as yet with about as much enthusiasm as having something hard, cold and wet inserted into your left ear. Thus far, the alternatives have been scant, complex, and a hassle to use. Roger Wilco is set to change all that.

Currently in beta testing, Roger Wilco requires the software, a sound card with full-duplex capabilities, speakers (to hear your talkies), and a microphone. Up to four people can be supported without the need to move to a dedicated Roger Wilco server (which any of the users can set). Running a dedicated server, up to 32 players can communicate to each other using this program. The list of games that will run with Roger Wilco is quite large indeed - covering most of the latest and greatest multiplayer games out there. Basically, if the game utilises Direct Sound, then Roger Wilco will run with it. Roger Wilco is however at times, a little temperamental with some games. Hence the beta test.

We downloaded Roger Wilco and had it up and running within minutes of installation. The sound quality was



Word of Mouth is Our Game. Post a Roger Wilco Banner to help us out.



A virtual walkie-talkie app that runs alongside your favorite multiplayer online games.
32 people per channel -- using 28.8 modems without a server.

European Air War, one of the coolest and most fun things to play online. "Gerry's on your six, Ace!"

this is that when the game is released here in Australia, there will be a local server (based here) for us to play on! This should reduce the problems and frustration of high levels of internet lag (which are commonly experienced when players use servers not based on the same continent).

The 4th Coming was also developed with accessibility in mind. With the system requirements relatively low (you're only going to need a P90 to play the thing), more players will be able to get in on the ORPG action. Still, the graphics of The 4th Coming are looking quite tempting. Visually sitting somewhere between Diablo and Ultima Online, The 4th Coming's low system requirements aren't keeping the game in the dark ages.

Has it got what it takes to compete with

TOP MULTIPLAYER GAMES THIS MONTH:

1. Quake II
2. Starcraft
3. Age of Empires
4. Half Life
5. European Air War

Our sneaking suspicion is that Half Life will remove Quake 2 from the top position in the coming months. Age of Empires no doubt has been enjoying a resurgence in popularity with the release of The Rise of Rome, an official expansion pack.

To cast your vote or to drop us a line regarding anything to do with net gaming goodness, email ngr@pcpowerplay.next.com.au

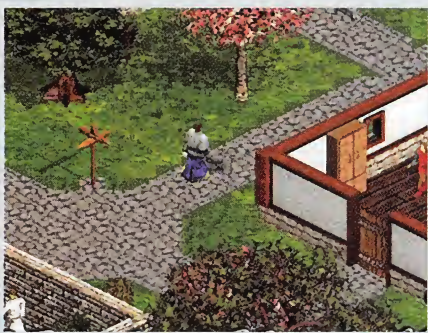


surprisingly clear, even considering that Roger Wilco was designed to provide the "walkie-talkie" sound experience. Things broke up a bit when more than two people were talking at the same time, so to ensure smoother results, it's best to wait till the person speaking stops. Because of this, Roger Wilco is better suited to combat games and flight sims. At this stage, free flowing discussions in a role-playing context just don't work that well. Also, a head-phone/microphone headset will be a necessity. More news on Roger Wilco soon.

Online Role Playing

The 4th Coming

And here they come. There's yet another Online RPG in development, though this particular one is using a slightly different design approach to most others. The 4th Coming (<http://www.the4thcoming.com.au/>) is being developed very much with gameplay speed in mind. Developed overseas, The 4th Coming and its servers are being licensed to countries all over the world. The major advantage of



the likes of the established UO and Ever Quest? Look for a detailed preview in a forthcoming issue of PCPP.

Ultima Online

Servers with a particular theme are popping up with more alacrity in the world of Ultima Online. Around the American Thanksgiving holiday, Origin put up the Farmageddon server for players to let loose on. The theme? Farm animals. Players logged on as just about any and every farm animal featured in UO (cows, turkeys, chickens, etc). Rather pointless and silly, but we here at NGN haven't had this much fun with UO since the Abyss server was taken down a month ago. The common spectacle was to see chickens running around cursing and attacking each other. Truly a sight to behold. One thing has become very apparent with these themed servers - the UO community simply loves them. Origin plan to keep these coming.

European Air War

Need a bit of a change from the ultra fast pace of a first person deathmatch or the involvement of an online RPG? NGN recommends MicroProse's European Air War (<http://www.microprose.com/gamesdesign/eaw/index.html>) and Microsoft's Combat Flight Simulator (<http://www.microsoft.com/games/combatfs/>). NGN recently staged a four player skirmish in European Air War including the venerable Ben Mansill, the relentless George Soropos and the man that needs no introduction -

HOTTEST TC/MOD OF THE MONTH

Action Quake II

Developer/s: The A-team
Game engine: Quake II
Available: Now
WWW: <http://action.telefragged.com>



The A-Team's creation may seem a little redundant now. Their catch cry is "All the speed of your favourite action film without the cost of a ticket". With games like Rainbow 6 out there however, wouldn't it be a better idea to leave Quake in the realm of super-fast fantasy action? The A-Team doesn't think so. The Quake 2 multiplayer structure still reigns supreme in the world of online first person shooters, so the A-Team looked to take advantage of this.

Their aim is to give the Quake II experience a more real-worldly feel. For this reason they've



Major Ian Lindgren himself. Piloting an antique with no computer systems on board in the thick of a dogfight is one of the most intense and enjoyable multiplayer experiences that we've encountered. Those that would pass off a multiplayer flight sim in favour of something more contemporary, like X Wing vs TIE Fighter take heed - give it a go. You will be surprised. Hopefully games such as these will generate a huge following in the online gaming community.

Wireplay

Wireplay (www.wireplay.com.au) have recently added a dedicated Unreal server to play on. The most recent Unreal patch in combination with a dedicated server based in Australia - multiplayer Unreal freaks NEED to check this out.

Wireplay have also announced support for Klingon Honour Guard, Descent: Freespace, and AoE - The Rise of Rome trial version.



included 6 well known toys of destruction: the Mk23 Pistol, Heckler and Koch M3 Shotgun, Heckler and Koch, MP5/10 Submachinegun, Heckler and Koch Handcannon 12 Gauge, SSG 69 Sniper Rifle, Sharfschützengewehr, and the M26 Fragmentation Grenade.

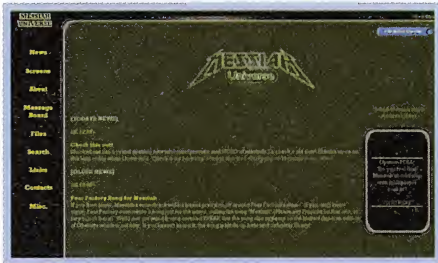
And the thing that most stands out about Action Quake2? The damage model. Take a direct hit to the head, and you go down, no questions asked. Get hit in the chest or other vital areas, and you start to bleed to death. To stop this you can apply bandages, however this leaves you vulnerable for a short amount of time. Take a hit to the legs and you'll run slower.

Map support is fantastic, as is the skin selection. For those wanting some seriously fun action with a slightly different flavour, check this TC out. And keep an eye out for Action Half-Life, in production as we speak, and officially endorsed by Valve Software.



WEBSTALK

This is the way we stalk the web, stalk the web, stalk the web.
This is the way we stalk the web, so late in the eve-ning



MESSIAH UNIVERSE:

<http://webhome.globalserve.net/aquaship/>

Messiah looks to be one of the hottest new games around at the moment and one of the best places to keep up with what's going on is Messiah Universe. This site is good for people just wanting to know a little about the game right up to Messiah enthusiasts. All the information is here, and quite easy to find. The site is updated daily too so you know that its one of the best sources. The only real problem with this site is that the Messiah logo they've got looks a lot like that of a metal band whose name also starts with M...

Content: ★★★★★
Site Design: ★★★★★



REDWOOD'S 3D NEWS

<http://redwood.stomped.com/>

Most of the Quake community would already frequent this site for Redwood's reliability, accuracy and humour in his news. What many people may not know

though is that Redwood's 3D news caters for all 3D games, not just Quake and it's derivatives. Redwood is one of the highest profile personalities in the gaming world, and thus he usually gets a lot of inside information which other sites would otherwise be getting weeks later. It's all too common to see "Saw this on Redwood's" scattered around other sites, ditch them and go to the source. Standard news site design but who really cares?

Content: ★★★★★
Site Design: ★★★★★

SWEET

<http://www.sweet.com>

It's been a while since we've featured a South Park site, and sweet (yes with three e's) is definitely a good one. Its design is a little lacklustre, but it's still a good site because it strays away from the general content of South Park sites and features a whole host of new things to do and read, and then generally laugh at. It's an Australian site too so there is actually information relating to us, not people on the other side of the planet. A fun site for South Park fans.

Content: ★★★★★
Site Design: ★★★★★

HYPER@CTIVE 3.0

<http://www.hyperactive.com/>

Most people who go to Hyper@ctive regularly will know that it's now in its third incar-

SITE OF THE MONTH

DOOMWORLD

<http://www.doomworld.com>

It's hard to believe, but it's been five years since the fateful day Doom was released. This site takes a nostalgic look back at the game and all the mods released for it both now and years ago. The site is updated daily with a new interview featuring prominent people from days gone by as well as people involved in the so called "Doom Revival" which will be picking up speed soon. Well thought out and very informative, Doomworld also has plenty of resources available if you start feeling the itch to make some more killer deathwatch levels, Doom is alive and kicking.

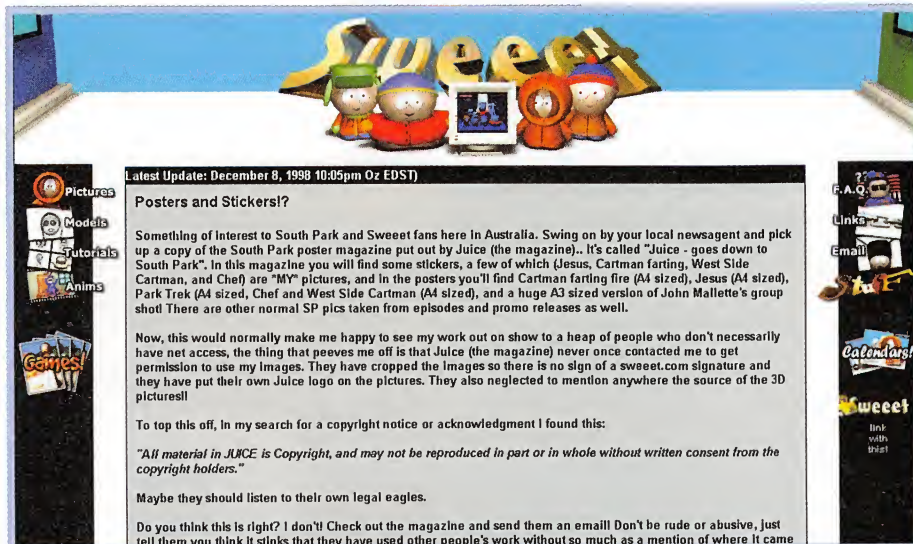
Content: ★★★★★
Site Design: ★★★★★



nation, and they'll also know that it took an awfully long time to get there. The site is now divided into systems so you won't have to wade through all that other stuff to get to the PC news and reviews. All the other parts of Hyper@ctive we know and love are still in there, such as the clan listings and the plethora of cheats. But Hyper@ctive is bigger and better than ever, with chat rooms, a whole host of new competitions and giveaways, and it's also increased the number of writers to keep track of all that's going on in the gaming world of ours. And blessed be, there's finally a new colour scheme too.

Although we feel this site deserves 6/5, that would also be biased.

Rod "Spoonman" Campbell.
spoonman@next.com.au
<http://surf.to/spooney>



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#31 European Air War, Half-life, Ultima Online, Budget & Beast PCs, Rainbow 6 playguide

#32 Powerslide, Voodoo3, Game of the Year winners, Dark Reign II, Half-Life & Dune 2000 playguides

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Sci-fi rip offs?

I was amused to see in your review of Arena's "Echelon" that the 3 main functions in the game were "Arutha, Trask, and Eriin", and that these factions had previously combined to repel an invasion by a common enemy. I assume that more people than myself can see the link to Raymond E Feist's Riftware novels in this game. I don't know who Eriin would be but the others are obvious to any fantasy reader. I don't necessarily disapprove of games developers using other influences in their games, especially such an excellent game worthy world such as the one created by Feist but in this day and age where gamers, magazines and developers are throwing catch cries of "innovation, originality, and good old fashioned gameplay" I find it hard to swallow that a seemingly crap game can try and steal someone else's creation and cash in on it.

Also, congratulations on the December issue, it was probably the best to date, it's good to see that Powerplay is lifting it's game and standing toe to toe with the new kids on the block. I do not exclusively read Powerplay and when that new PC Gamer magazine came out here I was tempted to cross over but the December issue was such a good read that you still have my confidence. I welcome the competition and believe that for us readers, it means that we are going to be even better informed about games. You don't have to print this last paragraph, just give yourselves a big warm fuzzy anyway.

Jason Brown
Internet

Kids play too!

First of all wonderful mag, I buy it every month, and you really deserve that Magazine award. Replying to the issue #31 letter "kids play too". I have to have a yell on older gamers, I mean what's the deal, I applied for membership of a Duke 3D total conversion team (yes I do think that it's better than Quake, heaps better than Quake, I bet just for that you won't give me

letter of the month, yeah I got punched on one occasion too.) and I got rejected because of my age. I'm 12, I adore games, I have a shelf full of games just sitting there because I am obsessed with Duke. And I never get accepted to LAN parties (sniff). So please give young gamers a go because if there is anything more degrading than not being able to frag your buddies at Duke and when I play Starcraft with my buddy on battle.net we never get members on our group because (you guessed it!) we are younger than most. But that doesn't matter because we always kick their arses, well most of the time.

A very furious gamer
Goran Grce
Internet

Techy humour...

Who is your tech editor? The reason I ask this question is that in the 2nd edition of PCPP Hot Hardware Guide, there is an error on page 15. Have you ever tried to put a 72 pin Simm into a ISA slot? Just thought I'd bring this to your attention as I know a lot of end users aren't too cluey when it comes to the inside of their internet porn browser. As a PC tech I just had a very funny conversation with a customer who swore black and blue that I didn't know what I was talking about when it came to upgrading his PC. I eventually found out that the source of all his knowledge was your mag. Well, this amused me very much, but he wouldn't believe me that there was a misprint. Needless to say that after a 1/2 hour talk (which started to get a little heated at points) and 3 other techs coming and laughing at this fresh faced know all he left. Please, please if you make mags on hardware and home upgrades put in a disclaimer, as it will make all our lives easier if there is a bit that can be found without much effort stating something to the fact that there may be the odd misprint from time to time due to human error.

Scott Lewis
Internet

Fair point Scott. Despite our best attempts, and extremely high work ethic, we do occasionally make a misprint or two - and even on rare occasions we might get something wrong. So let it be known far and wide, then: there may be the odd misprint or two due to human error. Sorry!



JOLT COLA LETTER OF THE MONTH
A CASE OF THE GOOD STUFF FOR THE LETTER
THAT SAYS IT BEST

I Want my Goggles!

I'm writing to say "what the hell happened to VR"?! A few years back there were as many as three or four headsets around, and promises of dataglove type peripherals at user level to follow shortly after. Surely technology has caught up enough to give us stereoscopic LCD (or whatever) screens at resolutions better than a cruddy 320x200 pixels! If only someone would design, build and mass-manufacture a whole kit aimed at end users, we'd be happy! The graphics rendering has caught up; the sound technology has caught up; where's our flipping peripherals?!?! It could plug into a USB port, or ethernet, or something. We've all seen Lawnmower Man, and probably read William Gibson's Neuromancer. Having 360 degrees of vision with 3-space interfacing, it's just bloody amazing, and I reckon it's high time we had it in the living room. I want Doom VR. I want Quake 3 VR. Stuff your "Force-Feedback-from-modified-massage-rollers" crap, just real 3D helmets and gloves, for starters! I want Colin McCrae Rally VR! Now!

Had it with keyboards and mice,
Coonabarbaran

Games, life, piracy, et al

What are we honest gamers to do? I dunno. You see, there are actually some of us out here that have to buy our games. We spend our time searching through magazines like this one, looking for the next 'sure thing', then head off down the store, hand over our \$90 and hope like hell that we made the right decision. Now comes the dilemma for me. I get home, stick the CD in and ring my mates. The response I have gotten the last few times has been less than exciting. "Oh that, I got it last month, on this CD with like 50 other games. I could burn you a copy if you want, only \$25." Arrggghh! I politely refuse and hang up. It's enough to drive you insane. This guy has a brother in Poland, and he gets all the games mailed out to him. He has never bought a single game in his life! OK, I'm not a pirate, it takes some strength, but sometimes you gotta say no. If everyone pirates, then we don't get any more games, 'cos there's no money in it for developers. At least that's what I try to tell myself.

PCMS
Internet

The bad bits

I'll skip the sucking up crap and get straight to the point. In your reviews in which games like Total Annihilation and Half-Life get the excellent score of 98, you guys often don't give a reason why these games don't get 100. I know it would have to be a damn good game to get 100, a perfect score

wouldn't happen easily. But you never give a serious reason why they aren't perfect in the against box. I mean, no game will ever be perfect, it just wouldn't happen. It would have to be ultra realistic and look incredible. A game like Half-Life is as close as it comes as far as your review goes. So why only 98? Possibly because you guys are worried about criticism, I don't know. Well, that's all I wanted to know. It's only a minor detail, that's all. Keep up the good work.

Harley McGann
Internet

Hmmm, that's not a bad point you make there, Harley. Half-Life, and no other game we've reviewed thus far in the life of the magazine, has been worth a mark of 100% However, the reviewers of these really great games (let there be no doubt about that, they are great games) may have become a little overenthused with the positive points at the detriment of reporting the negatives. Rest assured, it's something we'll pay close attention to in future.

Upgrade woes?

First of all, hello to all of the PCPP guys. Everyone loves your mag in my town, even some console owners. Now to the point, I am writing to say how sick I am of people complaining about having to upgrade all of the time. Over a year ago my family bought a Pentium 166 with 32 Mb RAM, 2.1 GB hard drive, 12xCD, 15" digital monitor and a 2Mb S3 Trio64+ video card. Since then all we have bought is a 56k modem and a 4Mb 3Dfx Voodoo graphics card. Almost

all games I have played run smoothly on it and I have played all the great games except for a few. You don't need to run them at their highest resolution to have very pretty graphics. The demos of Heretic 2 and Sin are slightly jerky and I have yet to try Unreal on it. What I am trying to say is that if you are going to buy a PC, get one that is good at the time and you will be using the same computer for a long time. There is no need to upgrade 2 or 3 times a year. Games are enjoyable even if they are not played on an absolutely fantastic computer.

Matthew Schultz
Internet

C'mon Aussie C'mon

I willingly prostrate myself on the spear of your guiding spirit. You are the coolest, you are God, you shine forth in a beam of gold from the stagnant, festering ocean of mucous-like pestilence that are the Philistine alternatives! Formalities out of the way, I'm just writing to say there should be more Australian characters in games. We all love Americans, I'm sure. But hell, they don't run everything and I for one am personally proud to have absolutely no idea where the hell Albuquerque is on the map. Or Detroit, for that matter. They can be funny to look at, and there's no doubt their military stuff is the blood and guts of a lot of classic games, but by crikey, we've heard enough about their irrelevant culture to fill a Coles shopping trolley just by spewing once. How about some lowly Australian everybokes that start off as the main characters who rise to Hero-dom? Instead of yet another New York private detective, how about the bloke that works at the Campbelltown Liquorland, or a guy that sticks insulation into roofs, experiencing a Cosmic event and having to do extraordinary things with a staple gun, for once?

Tork Normul You Barshterds!
Hornsbey

Major destruction

I think your mag is the hottest one around. I really like the fact you have a real life Major writing stuff about conventional A-bombs and effective ranges, it's too cool! He fully goes overboard and talks



about lethality and rates of fire, he's fully mad. And the other guys are pretty plugged in too, you're all nailing the real issues where we want 'em, which is good! You cut to the chase and take things apart, like in other mags they spend half their time explaining the crappy story, then say, "yeah, like, it's kinda okay". We want specifics!! And we got 'em. Thanks Powerplay.

Pete Johnson
Maroubra

Get away from my orifice!

It is ruining our Internet experience! What is it, you may ask. High ISP charges? No. The lag monster? No. It's two programs called 'BackOrifice' and 'Netbus'. These programs are not DOS (denial of service) programs but rather exploitation programs. To use these programs there must be at least one server and client each getting either the server or client end of the program. Once the server has it installed, the clients can wreak all sorts of attacks on the server without him even knowing what's going on. Netbus, for example has options such as open/close CD-drive (harmless enough but bloody annoying), spamming people, disabling keys (A friend had great delight in disabling someone's vowels), shutting down the server's computer, many more. But worst of all, there is the option of viewing and deleting the sever's files.

This is just going too far! If I was to log on and find out half an hour later all my windows .DLL's were deleted, I would be pissed to say the least. I used one of these programs on someone, and yes it was fun giving them error messages such as 'do you want to open CD drive' and only having the 'yes' button appear. After a while it was not enough and I had to step up attacks

- next came closing his programs. They would go into Starcraft on Battle.net and I would close off the game, making them lose.

People then started finding out about Netbus and BO and they became totally paranoid. They started to refuse ICQ file transfers. They deleted any programs sent through email and at a LAN became overly stressed - accusing people of using Netbus on their computer if something happened. I believe that these programs (which are only designed for this use) should never have been made or released openly on the net, available to anyone who wants them. It's a joke that's gone too far.

P. Wilcox

Consoles rock!

I'm writing in response to last month's letter, 'Cheap vs. Good' sent by Ucirc sect (like that's a real name!). How right you are! The N64 is great, even on those rainy days when everyone else is out and you have completed Quake 64 you can just join a server and play... oops, I forgot you have a console. Who cares if the new game has a few bugs? You can just get a patch file off the... oops, I forgot you have a console. Well, anyway, you finished the game and it's bit dull now, but it doesn't matter when you can get some great custom patches off the...silly me, keep forgetting you have a console. So you're a bit strapped for cash, but you can splash out a measly \$5 and get a great mag with some top demos on... oops, not for that console my retarded friend. At least you haven't a PC, I mean the only way around those horrible errors is to know how to use the thing! The Internet is so over-rated, with all it's free patches and demos. Gee, consoles are great.

Liam O'Connor
oconnor1@bigpond.com

WORK AT



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Ratbag is developing two major, original titles in 1999 for GT Interactive, publisher of Doom, Quake and Unreal.

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ARCADE



NINTENDO 64

COMPETITIONS



FALCON 4.0

The game that never was now really is. We can't believe it. Now what are we going to pick on for megaultra-lateness?! What a game though, what a damn fine game! Falcon 4.0 is everything promised and so much more. We knew MicroProse would come through, really we did. Tania at MicroProse, being 100% pure kindness, has donated 6 copies for this competition.

Q. The F-16 was designed as part of the 'LWF' project. What does 'LWF' stand for?

CARMAGEDDON II

Good, clean family gaming. That's Carmageddon - maybe... We love it.

Multiplayer Carmageddon at the end of a tough day is just the ticket to de-stressing in the happiest way possible. Because fun this good ought to be shared, here's the competition! We've got six copies to give away.

Q. What is the former East German 'plastic car' called?



THIEF: THE DARK PROJECT

Finally first-person-shooters are evolving into proper storyline driven games. Games which ask more of you than mere reflex shooting. Read the review of Thief this issue, you'll see what we mean. Thanks to the luscious Kym at Ozisoft, we've got 6 copies to give away.

Q. How was Guy Fawkes executed?



WHERE TO SEND

Write the answer, along with your name and address on the back of an envelope.

All entries close February 13, 1998

Entries to:
PC PowerPlay,
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Issue # 31 winners

HALF LIFE

"What is the half life of Plutonium?"

Answer: 24,360 years.

B Nguyen, Birkdale QLD.

N George, Newnham TAS.

S Leaman, Carseldine QLD.

S Schulze, Wangaratta VIC.

D Gatty, Burleigh Heads QLD.

L Gardiner, Hazelbrook NSW.

GRIM FANDANGO

"How does everybody die?"

Answer: Lack of oxygen to the brain.

R Murphy, Toowong QLD.

P Healy, Ashburton VIC.

E Cosheril, Currumbine WA.

J Tagell, Malvern VIC.

C Rogers, Novar Gardens SA.

K Dight, Banora Point NSW.

EUROPEAN AIR WAR

"Which British Scientist invented the dam busting bouncing bomb?"

Answer: Barnes Wallis

J Pogliits, Geraldton WA.

T Russell, Mt Druitt NSW.

D Grubb, Werribee VIC.

S Ross, Morphett Vale SA.

M Simpson, Brisbane QLD.

V Palmer, Carine WA.

ALONE IN THE DARK

Developer: Frederick Raynal
Year: 1992
Requirements: 286
16Mhz, VGA, Hard Disk

Just as cineastes idolise great directors like Welles, Hitchcock and Godard, certain game developers are held in similar reverence. Molyneux, Meier, Garriott, Carmack and Miyamoto all have their share of fanatical admirers, but for me there is none better than Frederick Raynal. Chiefly responsible for no less than four of my favourite games of all time, Raynal has forged a career based around revolutionising the action/adventure. All his games have - to greater or lesser degrees - provided incredibly rich adventures replete with depth, drama and daring.

Alone In The Dark was his first big hit back in the early 90s. In an era relatively untroubled by visual extravagance, Alone set a new standard for graphical style. With exquisitely animated polygonal characters and deftly detailed backdrops, all displayed using the now famously confronting array of camera angles, Alone was a mesmerising game to play. Especially memorable, for me, was the scene where you step into a small room adjoining the kitchen, only to suddenly find the camera on the floor with your character towering above it, and then you spy the outstretched arms of a zombie appearing in the doorway. Yikes!

The introductory sequence was magnificently creepy and compelling. After choosing your character (either Edward Carnby, private detective, or Emily Hartwood, niece of the now-deceased owner of the house you are about to enter), you see their car pull up outside Derceto, the huge, isolated gothic mansion where most of the game takes place. You walk up the path, open the front door



Sure, it may not look too spooky, but it's all in the playing...

and step into the foyer. Slam! The door closes behind you, trapping you inside. Eventually you find yourself in the attic, where you have been told there is a valuable old piano worth investigating and thus the game begins. Within moments you find yourself under attack by a duo of hideous undead creatures - one smashes through the small window, while the second emerges through a trapdoor in the floor.



Few games can match the sheer terror Alone often generated. Heart-stopping moments were frequent and rarely predictable. I remember, with a vividness indelibly imprinted in my mind, the first time I opened the dining room door and nearly fainted when I saw FIVE zombies seated at the grand table. Sure,

they were deathly still and wouldn't become animated until I took a few steps into the room, but that just made the feeling of dread even worse. And it still freaks me out when, upon entering the upstairs bedroom, the camera cuts to a shot from outside the window just before a winged gargoyle shatters the glass and swoops down upon you.

Slow deliberate footsteps, the creaking floorboards, sinister howls permeating the walls and an out of tune piano clattering with unbearable menace, the sound effects in Alone brought the nightmare to life (or death) in a way I'd never previously experienced in a game. But it wasn't just a great occult thriller designed to scare you witless. The house of Derceto was packed with puzzles, some even providing clever ways to avoid direct combat with the denizens of the crypt beneath the house.

Alone In The Dark was a genuine action/adventure. To survive you needed to be both smart AND fast. The perfect game for the genre-challenged. Which is another reason why I loved it.

David Wildgoose



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